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FARM AND FIRESIDE

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A LARGER PAPER

On account of the increased demand for advertising space, this number of the FARM AND FIRESIDE has been enlarged from the regular size of twenty pages to a twenty-four-page paper, and readers will find several extra columns of interesting reading matter.

A NEW DEPARTMENT

The attention of our readers is called to the new department on page 23. There they will find entertainment for the long winter evenings and an opportunity, with liberal rewards, for testing the sharpness of their wits.

A WORD TO SUBSCRIBERS

As this is the time of the year when many subscriptions expire, we kindly request you to examine the "yellow label" on this copy of the paper. If the date shows that your subscription has expired, or is about to expire, your prompt renewal will be highly appreciated. And we desire to call your special attention to the attractive premiums offered in this number to those who get subscriptions for the FARM AND FIRESIDE.

END OF THE $100.00 NAME CONTEST

Our friends should read the announcement on the 19th page of this paper. To print and mail our large edition it is necessary to go to press about two weeks before the date, therefore this January 1st number goes to press two weeks before the close of the $100.00 Prize Contest, and most of our readers will still have time, after receiving this copy, to suggest a name and enter the list of contestants. You still have the opportunity of securing the prize of $100.00 cash. Make this your first business, and do not stop until your suggestion for a name is mailed.

The Farmer in Northern China

His Present Condition

By WILLIAM N. BREWSTER

THE farmer in northern China, of all men of his class, in recent years has been having a hard time to make ends meet. He has been eaten up by "Boxers," overrun by foreign troops, filched by indemnity-fleecing officials. A number of years of drought, added to a semi-arid climate, have combined to make the farmer of the Pechili province an object of commiseration by his fellows in every country. It is no wonder he is "agin the government." The government and everything else have seemed to be against him in recent years. Being unable to raise much in the way of grain, he seems to have turned his attention to "raising Cain," in the shape of rebellions, uprisings, legation sieges, and such like, that furnish abundant food for rapacious reporters, but leave the common man emptier than he was before.

A brief visit to Peking early last June considerably deepened the impression I had had that the province of Pechili is a good country for the farmer to emigrate from. I was told that June was their most unpropitious month. The rains had not begun; they were due early in July, but they had not been arriving upon schedule time lately.

Peking is about in the latitude of Columbus, Ohio, but it does not remind a Buckeye of his native state in climate or topography. A railway ride from Taku to Peking is as free from inspiration as German metaphysics, and as flat as the sermon I heard read in the capital the following Sunday. The whole country is an alluvial plain, washed out into the sea by the slow, snake-like Peiho River. The farmer here is not troubled by stumps, stones or hillsides. He raises millet for his chief staple. Winter wheat is harvested in June. It was still green when I passed many thousands of acres of it. It did not remind me of the Miami Valley wheat-fields of my boyhood. It looked as though it would not average half an American crop. Indian corn is raised, but I saw very little of it. It is not largely produced.

Later in the summer the country is covered with broom-corn. It grows to the enormous height of fifteen feet. It was this growing crop that made the march of the Allies to Peking, in August, 1900, so difficult. The lurking enemy in the standing corn could shoot, hide or run away with comparatively little danger. It was impossible to see the country to any distance, even mounted upon horses. The troops could not keep together. No wonder they made less than eight miles a day, through a thicket like that. The stalks are the chief fuel of the people.

Speaking of diet, these growers of grain eat what they produce, and little else. Rice is imported from the Yangtse Valley, and is eaten by the rich, shopkeepers and well-to-do non-agricultural classes. They make a gruel or mush of the millet. Corn is baked into cakes on the sides of a kettle. Wheat-flour is made into a steamed bread.

Plowing in China is much the same everywhere, the plow being as crude as possible, and it makes such a shallow furrow that no small grain can take deep root. The cattle used are small and poor. The horses are little better. By far the finest animals are mules. Many of these are equal to the average raised in Louisiana. They bring a good price—from forty dollars to seventy-five dollars—and the ordinary farmer cannot afford to keep such luxuries. There is one decided advantage possessed by the farmer in North China that his brother of the South does not enjoy. He can take his grain to market on wheels, instead of using his own shoulders. The freight-cart of North China is as crude as would be expected from a people who have invented nothing for a thousand years. The team is generally eclectic. It has a greater variety than the landscape. I saw a poor, bony horse, a lonesome cow, a disconsolate little donkey, and a no-one-to-love-me-looking mule, all hitched to one cart. As this was the whole of the menagerie, I concluded that it was a private country team, and not part of a traveling circus.

CITY GATE—PEKING

But the clumsy cart and mongrel team are not the only picturesque features of the transportation of North China. The roads—I was about to say "are fearfully and wonderfully made," but that would be inaccurate. They do not seem to be made at all; that is, not made with hands. They are generally constructed by the passage of heavy carts cutting deep ruts with great irregularity.

In Peking, since the foreign occupation, there are a few well-paved stretches of street, especially in the French quarter. Legation Street has been improved. The worst section is now in front of the American Legation. Lord Charles Beresford testifies that it was in this street that he saw a mule drowned.

There is one bit of purely Chinese-built road that was in fair condition when I saw it. The Imperial Tombs are located twenty miles from Peking. The new railroad runs nearly to them. But when the Imperial Court paid them a visit last spring, the Dowager Empress required that a new road be constructed for this sole purpose. It cost thousands of dollars a mile. Such foolish extravagance and selfishness upon the part of the supreme ruler make luminous the reasons for bad roads, and a variety of bad features of government, under which the farmer John Chinaman groans.

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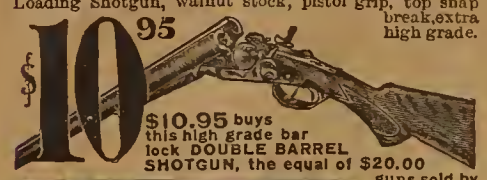

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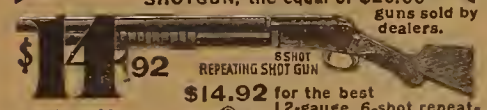

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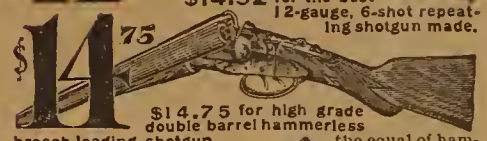

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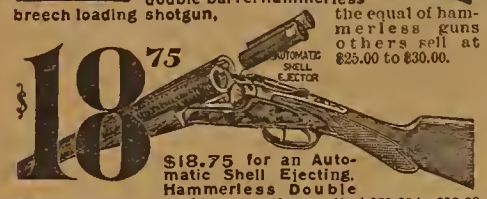

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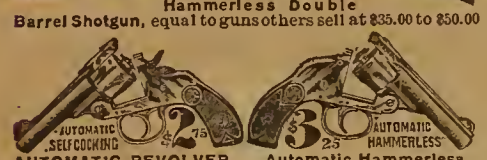

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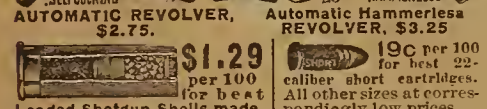

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Mr. Greiner Says:

RUSSET ON FRUITS.—Mr. Mann, the noted orchardist of the northern part of Niagara County, reports that some of his more delicate apple varieties were covered with russet spots or blotches, and finds the cause of it in his excessive spraying. The results otherwise were entirely satisfactory, in some cases remarkable.

TO SPRAY OR NOT TO SPRAY.—At the November meeting of the Niagara County Farmers' Club the spraying question came to a discussion once more. The season had been wet, very wet, and persumably unfavorable for giving striking results from spraying fruit-trees, yet such striking results were reported in a number of instances, and they have also come under my own personal observation. Professor Craig is undoubtedly right when he says that spraying pays even in a very rainy season. The spray acts in a double capacity—first as a disinfectant, second, so long as it remains on the foliage, as a protection for the covered portions from further fungous attacks. Heavy rains after a while may wash off the protective armor, but they cannot prevent the action of the fungicide as a disinfectant. The spray will kill all fungus spores with which it comes in actual contact, and these will not revive again, no matter how soon or how much it rains. So we shall continue to spray.

SHREDDED WHEAT.—Shredded-wheat biscuits have become a popular breakfast-food, and are found on sale in every well-regulated grocery. But who would have thought years ago, when we first began using them, that less than ten years later we would also feed them to our farm stock? Yet this is actually the case. The palatial factory where floors, tables, shelves, ovens and machines are kept so scrupulously clean that not a dust-speck is to be found, is located but a little ways beyond the reach of my eyes from where I write this. The waste in the manufacture consists of broken biscuits and crumbs—nothing more nor less than biscuits broken up in uniform fibers somewhat similar in form to desiccated cocoanut—and is sold at twenty dollars a ton for poultry and dog food. I find it excellent for these purposes, and have also used it to some extent as a grain ration for horses and cattle, mixing it with cut hay or corn-stalks in the usual way, like bran. For poultry it seems an ideal food-material. Of course, I add some meat-meal to it, then moisten the whole with boiling water, and give it to my fowls as a forenoon meal, all they will eat up clean. Capons and hens eat the mess with considerable gusto. According to a table given in Bulletin No. 46 of the United States Department of Agriculture, an average sample of wheat contains 12.25 per cent protein and 71.25 per cent carbohydrates, while shredded-wheat biscuits contain 12.06 per cent and 71.11 per cent respectively. In other words, the nutritive value in both is pretty nearly the same. In the shredded biscuits the food-materials seem to be in much more easily digestible form. For whole wheat I would have to pay here, at present prices, not less than one and one third cents a pound. The shredded wheat costs me only one cent. With the addition of meat-meal (and feeding clear corn at night) I can easily compound a well-balanced ration for my fowls, and get winter eggs right along. Then, too, the preparation of the "warm mess" is so simple and convenient. This shows that in some instances we can find local sources of supply for cheap and useful feeding-materials.

CITY AND COUNTRY.—An investigation of the condition of school-children in the slums of Chicago reveals the fact that there are a large number (one hundred thousand it is said) of these children, some of them fourteen years old and over, who do not know the difference between a dandelion and a rose, a violet and a daisy. Flowers were carried into three schools in the "slum" district, and it is declared that the only flower recognized by the majority of the children was the rose, and even that was not always known. Can such conditions be possible? Surely, one half of the world does not know how the other half lives. We country dwellers have no inkling of the true situation in those unfortunate city districts known as the "slums." It seems that there is more need for "Nature studies" in those city schools than in our common rural-district schools, and a crying need for "flower missions" for city-school children. A Buffalo evening paper, commenting on this report, says: "Think of it! A hundred thousand children in one city who do not know a rose from a daisy, or a carnation from a dandelion! A hundred thousand little souls whose innate love of the beautiful, whose natural longing for the fields and woods, have been suppressed throughout their short, cheerless lives by the heavy hand of poverty and gloom. A hundred thousand children in one city who never watched a flower bud and then blossom; who never heard the quail pipe from the stubble, or the robin call his mate; who never heard the bluebirds' whistle, the hum of the bee or the whirr of the locust! God save them! What sort of citizens and citizens' wives will they make?" It is not many years ago, in the very same city of Buffalo, where the quoted paragraph was penned, while passing through lower Main Street with a large bouquet of flowers (intended for the decoration of the last resting-place of a dear friend) that I was followed by a number of sallow-complexioned, sad-eyed children, evidently of Italian parentage (a nation in whose hearts the love of flowers and fruits and a sunny sky is especially strong), all begging for "just one flower" so urgently and pitifully that I could not resist. The incident then, as does the awful story from Chicago, impressed upon me the fact that every farmer, every farmer's boy or girl, has everlasting reasons to lift up his or her voice in song of praise and thanksgiving for the blessings of country life and close contact with Nature, which are their priceless inheritance.

Mr. Grundy Says:

FREIGHT RATES AND PRICES.—A few days ago the railroads raised freight rates ten per cent, and down went corn two cents a bushel. The price of corn will rise and fall as before, but the price to the farmer will be two cents further from the price paid at the principal markets. The increase in freight rates did not increase the price of corn in the principal markets, but it did decrease the price at the farm. So, after all, the farmer pays the bill. Every toll that is levied on farm products by dealers, carriers or storers must be paid by the farmer.

A few days ago I was in a store when a farmer came in and called for some repairs for a machine he had ordered some time previously. When he paid for them, the merchant said, "They are ten cents higher this time."

"How's that?" asked the farmer.

"Freight rates are higher, and it cost just ten cents more to get them here," replied the merchant.

"Well," exclaimed the farmer, "if that's the case, why in blazes didn't they knock off ten cents at the other end? What do they want to make me pay it for? If they ordered something from me, and freights jumped up ten cents, they would deduct it from the price mighty quick. I don't see any sense in that game!"

Every one in the store laughed, and he left very indignant.

TURKEYS are good property this year. I keep the White Holland variety because I find that they stay at home more closely than the Bronze, and in this section that is an excellent characteristic because of the numerous amateur sportsmen wandering about the fields and shooting everything that is feathered. Then there are "bird" dogs and hounds and various sorts of mongrels constantly hunting through the farms, and anything is game to them. I like to have my poultry stay near the buildings, where two-legged and four-legged hunters fear to molest them. I also find that the Holland turkey grows quite as fast as the Bronze up to a good weight, and that its flesh is rather more tender. It does not reach the great size of the Bronze, but it grows large enough to be attractive to turkey-consumers, and they are the people we are most desirous of pleasing.

Just before Thanksgiving the demand for turkeys was about as lively as I ever experienced. Prices were very fair two weeks before that event, but it seemed that most people desired to hold their stock for still higher prices, and the demand went unsupplied. A few days before turkey dinners were the one thing that could not be omitted without reflecting seriously on one's financial standing the demand for these birds became so urgent that the price went to anywhere. Then holders began to let them go. There will be another great call at the holiday-time, and most people will be strongly tempted to sell all but three or four breeding birds. At Thanksgiving some of mine brought as much as a good pig used to. For several years I have been selling these birds for breeding purposes, but this season they have brought me more on the open market. The excellent prices obtained have saved me the trouble of making shipping-coops, hauling to depot, billing out, and lots of other trouble. Buyers take them from the yard, paying spot cash.

POULTRY-HOUSES.—A FARM AND FIRESIDE reader living in Wisconsin writes me as follows: "I have been reading in a poultry paper that the profit to be made from hens is larger than that to be made from hogs, so I have fitted up a splendid house for my eighty hens, and am going to try it. This house is twelve by twenty feet square, and is covered entirely over with straw—top, sides and all. The door is rather small, and as the interior is somewhat dark I have placed a half-window in the south side, to admit more light. The room is as warm as the inside of a house that is nicely heated, and it seems to me I ought to get lots of eggs this winter, and raise some early chickens next spring. What do you think about it?"

I would suggest that it would be a good idea to dig a deep and good-sized trench before the ground freezes hard. Have it convenient to this straw house, so that the hens that die with the roup can handily be tossed into it. The greater part of this flock will perish before spring, and our friend will go out of the poultry business in disgust. He will think that luck is against him, when in fact it will be his management that will be at fault. His warm straw house is just the sort of a place in which to develop roup in its worst form, and when it gets started his fowls will die like hogs afflicted with the cholera. The best thing he can do now, if he wishes to keep that flock over, is to build two houses, each about ten by fourteen feet square. Have them at least twenty feet apart, and connect them together with a scratching-shed as wide as the two houses. For that number of hens I would have the scratching-shed thirty feet long, open to the south or east, the opening to be covered with poultry-netting, so the hens could be kept in during bad weather. Have all roofs rain-proof, and batten tight every chink in the walls. If there is nothing to break the north and west winds, cover those sides with good roofing-paper. Put enough straw in the scratching-shed to cover the floor a foot deep, and scatter wheat among it. Feed the hens lightly in the morning, and they will scratch for the wheat during the day. Feed well just before they go to roost. Plenty of grit and oyster-shell and water and covered nest-boxes are essentials. Hens must have plenty of fresh air to keep in healthy condition, and their roosting-room must be dry and free from drafts. If moisture gathers on the walls, one may at once conclude that the room is too warm or close, and more air should be admitted from the scratching-shed to avoid direct drafts. Aim to keep the hens fairly comfortable at night. Frost will not hurt them, provided it is not severe enough to completely chill them or freeze the combs or wattles.

All Over the Farm

FARM THEORY AND PRACTICE

The New-year.—In boyhood days, when errors had complicated the problem in arithmetic until all was confusion, we liked to wipe the slate clean and begin again. It is one of the privileges of youth to make a new beginning when things go awry. There is chance after chance, or else few of us would win at all. In a degree, farming gives us an opportunity each year to make a new beginning, and that is one of its best features. We cannot get away from the effects of past failures all at once, but a new season brings its own opportunities for making a more successful record. It is profitable to study the causes of those failures that come within one's view, whether they be one's own or those of others. Each failure has its cause or causes, and when we are able to locate them accurately our chance of winning is greatly increased.

Doing a Credit Business.—No man makes money by contriving to have his business acquaintances carry him financially through the year by means of slowness in paying what he owes. I have seen the matter tried by many, and every time has such a one lost. Oftentimes he never saw much that he was losing. He may have realized that the merchant offered him no special inducements to buy, and that he could not buy as closely from some neighbors as could others, but he never knew how many kept away from him when offering bargains to cash men for the sake of getting some ready money. The reputation for being slow in paying does a man a lot of harm financially. It is the fellow who reaches for his money as soon as he makes a purchase that gets any sort of goods at the lowest possible price.

Debts must be paid finally, or one must quit business. If a man is behind in the game for any reason, good or bad, he should know just how far he is behind, and it is not to his interest that every one be discussing his chances of winning out. This will be done when one owes many people and gets the reputation of being a poor payer. It is business to reduce the number of creditors, and this is easily done if one have any property back of his promises. There are men who want to loan money, and will do so at a low rate of interest to a man who is worth what he needs to borrow. It is better to face the situation, know just how much is needed to square with the world and keep one on a cash basis until receipts from the farm are at hand, and then secure that much money, pay interest upon it, and join the ranks of cash men. It is a surer and quicker road out of debt than the foolish one of trying to get the use of others' money without paying any interest.

Letting Things "Happen."—Very often it is unexpected losses on the farm that "queer" the profits at the end of the year, and some of them cannot be prevented. I am an unbeliever when "luck" is given much credit, be it "good" or "bad," and when many things go wrong there is usually something wrong in the management. A man is "lucky" when he has good judgment and lives up to it, and he is "unlucky" when he is slow to see and to act. Some things will "happen;" but the man who is doing his best usually gets there and gets things to going his way before they have a chance to happen. Most accidents and losses are due to some lack of precaution; not all—"most" means much more than half. Preventable losses are immense in amount.

Lack of a Specialty.—Very few farmers are so situated that they can concentrate all their effort upon the production of any one thing, and it is probably a good thing that this is so. There is a risk in such farming, far greater than in somewhat diversified farming. Yet it is observable that a majority of our most successful farmers gain a reputation for unusual success along some one line. Every farmer should be a specialist in so far that he is putting his best study and energy into the care of one or two kinds of live stock or one or two kinds of field crops for which he has a special liking and for which his farm is fitted. Few men are so constituted or so situated that they can make an unusual success along a great many lines, but every farmer should be able to do better than the average with some one thing on account of local conditions or on account of special study given to it. When that is found which is surest to bring in some income at the end of the year, let it have some right of way, dropping out some minor thing that rarely pays and has been given time and labor largely from habit alone.

Want of Thoroughness.—Some of the most noted successes in agriculture have been secured on very small farms. This is no argument in favor of a small farm if one is broad enough to handle a large farm; but it is proof of the value of thoroughness in farming, because these successes have been due largely to doing everything in the best way. It is the pig that has been bred right and fed right that brings in the profit. It is the field that has the best seed and tillage that rarely disappoints one. These statements are old, and we may tire of them, but scant feed, scant seed and scant tillage are keeping many a man from making money. If we do not have enough faith in an animal, a field or a crop to give it every chance, we should be rid of it, and concentrate energy upon something else. Something will pay if we put the best of ourselves into its care.

A Narrow View.—When we look only to immediate profit we make a big mistake. Having a system that has proved fairly good, let us live up to it, not discouraged by a single year, and not following the crowd after some new thing. We are narrow when we take up with any project by which we are supposed to be able to make easy money off our neighbors or off a business concern offering us an alleged opportunity. Inability to see more than one side has let shrewd men reap a big harvest of dollars at farmers' expense.

We lack judgment when we become security for others. Business men take risks that farmers, working for small profits, dare not take, and a request from them should meet a refusal. Poor men in need should be loaned whatever amount of cash one is able to risk, and if one cannot let them have money he should not obligate himself as security to pay what he is unable to pay if the other fails. Every man should be liberal in thought and act, helping where he is able, but it is narrow to risk money needed by one's family that some one else may be made sure.

Business Sense.—It is my experience that many things do not go as we plan. Losses will occur for which we are not responsible. We are sure to make mistakes in judgment, but our prospects for future years depend upon system in farming, thoroughness in details and the use of clear-cut business methods. David.

THE BEST THERE IS IN THE FARM

Few of us get the best there is in our farms. That is because we do not put the best there is in us into them. There isn't much use in expecting great things on the farm unless we are willing to plan, work and study how to get those great things. How shall we go at it to do that?

In the first place, the soil must be in a good state of fertility. This means that we have carefully saved up every particle of barn-yard manure we have, and have seconded this effort by a judicious use of commercial fertilizer. It means, too, that we have not previously cropped the land to death. Then, we will plow thoroughly. Not one man out of ten in this country knows how to plow; or, if he does, he has not the grit and the gumption to do it. Once in a while we meet a farmer who insists that this part of the farm work shall be done thoroughly. He is on the way to success. It was an old Scotchman who said, "Ye dinna ken how to plow in this country; ye on'y scraiteh the groon." And that is about what most of us farmers do—we scratch the ground.

And again, to get the best there is in our farms we must use the harrow more faithfully. The farmer has no better tool than a good harrow. I say a "good" harrow because hosts of farmers have not such a thing as a first-class harrow on the place. They are working away with the same old V-shaped "drag" their fathers used, or else have picked up at some sale a worn-out thing not worth bringing home. No good work can be done with such a tool. Harrows of an up-to-date pattern are reasonable in price nowadays, and every farmer ought to have one or more.

Good, clean seed is a requisite, too. No use to sow seed that will not grow or that is full of weed-seed. This may mean the purchase of a fanning-mill, to be used in recleaning seed. We may better do this than to seed our farms down with foul weeds.

But, finally, we will fail after all if we do not keep the weeds down in every crop that can be cultivated. This means steady work for a few weeks in the spring of the year, until the potatoes have been hilled up and the corn is too large to admit of working a horse through it. But the end tells the story.

Other things being equal, the man who puts himself into his work as I have here described may rest assured of a good crop—the best the soil will produce. And that ought to make him happy. E. L. Vincent.

COUNTRY CUTS

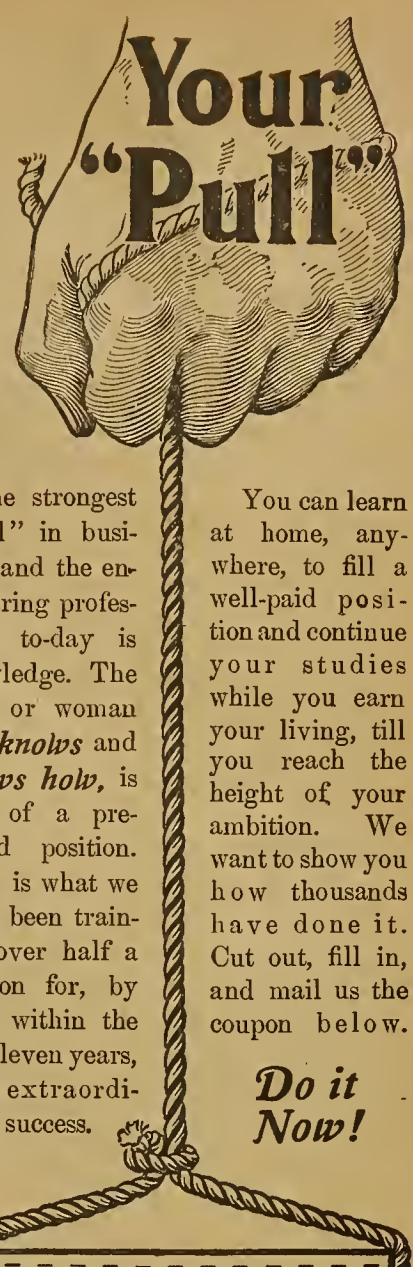
I have an old, observing neighbor who says, "When I see a man who is bigger than his farm, I am always sure he has a good farm. When the farm is bigger than the man, there's sure to be ragged places on the outside and bare spots on the inside."

"But," I answered him, "suppose a man is born as he is, and can't change his spots, what shall he do?"

"Why, sell his farm while he can give a clear title, and go buy a garden—get something he can cover."

Again he said to me, "For the money invested, and counting all the returns it gives, farming is the best business I know. The good farmer is in partnership with the wind, the rain, the dew, the heat, the cold—they are all working for him. He can take a holiday, and his partners work right on. He don't get very rich, but he can grow so broad that more money than he needs ain't no attraction for him. He ain't lonely nor isolated in the country. All that is done or thought that is worth anything—and some that ain't—gets into the papers and books, and the mail comes from every place to every country office. The countryman need not pine for the converse and society of the big men, which he thinks he could get in town. The big men ain't running around conversing; they are too busy thinking and doing things—and it all sifts out to the country. We miss the best music and art only, but the town fellows miss plenty we have." W. F. McSparran.

The Need of the Hour, so far as the American farmer is concerned, is not so much of learned dissertations that cannot be comprehended without the aid of the Century dictionary, but more local experimenting along lines where practice can be combined with science. * * *



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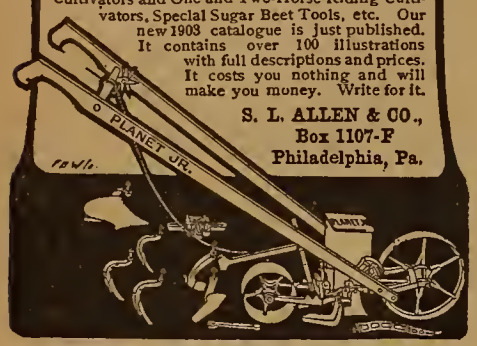

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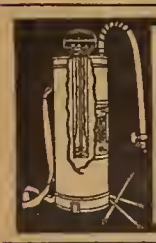

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Gardening

By T. GREINER

SKIRRET.—I have skirret. Who else has it? What is it good for, if you do have it? It is said that the roots are good for cooking like salsify. I don't want them for that purpose. For what other, is the question.

NO MORE RED ONIONS for me. Nobody seems to want them, and they are a drug in the market, while the demand is brisk for yellow onions. I shall plant no more pink Prize-takers. Yellow ones are good enough for me.

THE IMPORTED SPANISH ONION is quite subject to the attacks of black-rot fungus, and a large proportion of the bulbs brought to this country are spoiled for use by it. The Gibraltar onion has the same weakness. Evidently it is of the same blood. The only thing we can do is to sell and use these large onions as soon as possible after harvesting.

PLEASURE IN GARDENING.—There is plenty of enjoyment in gardening, even at this time. We look at the gay pictures in the catalogues, and in anticipation feast on the real thing that will match the picture. Altogether, however, a study of the catalogues, comparison of varieties, methods, etc., is pleasing, profitable and edifying. Get the catalogues!

PARSLEY.—Whether parsley is good for bee-sting or not, I have to have it, summer or winter. For summer I sow the seed very early in open ground, although it is still better to start it earlier under glass, and then transplant the young roots. For winter I transplant a few roots from late-sown seed in a box or large flower-pot in the house, or in the greenhouse. It comes handy for soups and garnishing. Extra Curled and New Exquisite are my kinds, with little or no marked differences between the two.

QUALITY OF TABLE-BEETS.—Hereafter I shall plant for quality more than for any other consideration. My main crop of table-beets in recent years has been the Eclipse. I did not like Early Egyptian as well, although it is a little earlier. Market Gardener's, Crimson Globe, Rochester—all of them I find good beets, and as reliable as Eclipse. A reader in Canton, Ohio, says that for the past three years he has been planting Crosby's Egyptian, and can always win out alongside of Eclipse sowed at the same time. Detroit Dark Red makes a close companion, being of better quality, darker, and remaining in good condition the whole season.

HINTS ON ONION-GROWING.—A reader asks for some hints on how to grow onions. It's a big subject—too big for our space or to give many details. Try the new onion culture. Get a little seed of Prizetaker or Gibraltar, and sow as early as possible in a box in the house, or in a hotbed outdoors, making rows one and one half or two inches apart, and sowing the seed rather thickly, say at the rate of one ounce to twelve square feet of bed. Push the growth all you dare to, and cut off one third of the tops when top-heavy. Then plant out in good soil in early spring, with three or four inches space between each two plants in the rows, and the rows fourteen or fifteen inches apart. If this is followed you will be liable to grow very large, fine bulbs.

SEEDS NOT TRUE TO NAME.—My general experience with seeds bought directly from prominent seed-houses is entirely satisfactory. Occasionally one may get a lot of seeds that fail to grow or prove something else than was ordered, yet to my knowledge such occurrences have been rare. Now comes a reader in Ohio complaining bitterly about a prominent seedsman—one of those who claims he is doing the largest mail-order business in America. My correspondent ordered a pound of Crosby's Egyptian, and raised from it Eclipse, Bassano, Half Long Red, and some specimens weighing five to eight pounds each which were gathered late in the fall for the cow. He also ordered a pound of Golden Giant, and planted it with Golden Tankard, seed of this being left over from the previous year. Not a bit of difference was found between the two, and now he would like to know what he has been planting for the last ten years. I wonder if our friend has promptly reported about all this to his seedsman. The latter undoubtedly wants to know if anything not up to the mark goes from his establishment, and probably is ready to make reparation if the seed was faulty.

BLANCHING CELERY.—A Minnesota re der inquires about "how to blanch celery." Simply by growing it in the dark. It is now too late for outdoor work in this line. Before severe freezing I take up the plants in the garden, selecting all that are wholly or partially blanched for immediate use, and those yet green for cellar storage. You want a dark, cool, moist corner, and if you stand the plants, with some soil left adhering to the roots, upon a layer of moist sand, muck or loam of any kind, keeping the roots moist and the tops dry, the celery will make a new growth that is white and wonderfully brittle and sweet. That is all there is to it. Of course, you may also store celery in a trench outdoors, and thus get some fine, well-blanched stalks. Have the trench deep enough, so that the extreme tips of the plants will just reach to the surface of the ground. Cover with boards, litter and soil, first lightly, then gradually adding to it as the weather gets colder. For blanching celery in open ground, which is done chiefly for the earlier self-blanching kinds, I now use boards altogether. It is a simple and easy way, and the boards may be used over and over again for three or four lots of plants during the same season. In good growing weather it takes only two weeks, or a little over, to get White Plume or Golden Self-Blanching in nice shape for table use. The blanched stalks are then taken up for sale or use, and the boards moved along to be set up against a new lot of plants, then yet green, and so forth.

Fruit-Growing

By S. B. GREEN

MAGNOLIA FROM SEED.—E. T. A., Normandy, Tenn. The Magnolia grandiflora can be grown from seed by gathering the seed in the autumn, separating from the pulp, and sowing at once, or by mixing the seed with sand over winter in a box, burying it where no surface-water will stand, and sowing in the spring. The seed should be sown about two inches apart in rows two feet apart, and the seedlings transplanted at the beginning of second year.

GUMMOSIS OF CHERRY.—N. A. R., St. Elmo, Tenn. The trouble with your cherry-tree is probably the result of a disease commonly known as gummosis. This is an infectious disease, which is supposed to enter the plant where wounds have been made in pruning, and when in the plant will live for a long time, and probably until the tree is dead. It has been very destructive in some varieties of cherries, especially in sweet cherries in some localities. Some varieties, too, are much more subject to it than others. The best treatment is to burn the infected trees, and in this way remove all danger of infection from them. Spraying with Bordeaux mixture might act as a preventive, but it would not be of any use after the disease had become established in the tree. Of course, gumming of trees may come from the presence of borers or other injuries, but from your description it is my opinion that it is nothing of this sort that has destroyed your cherry-tree.

TO KEEP CIDER FROM FERMENTING.—H. E. M., Thief River Falls, Minn. There is practically no way of keeping cider from fermenting unless something is done to sterilize it. This sterilizing may be done by raising the cider to a temperature of one hundred and fifty degrees three times, allowing it to cool between, and finally bottling when hot. This is certainly the best way of treating it if you do not wish to use a drug. In my own experience I prefer to keep it sweet by adding about one half pound of carbonate of soda to a barrel, not making it until late in the autumn, when cold weather is assured, and then keeping it cold during the winter. If it is in a room the temperature of which is just below the freezing-point it will not freeze, but will be cold enough to prevent any very active fermentation. The cider that is sold in the stores is generally sterilized by the addition of salicylic, boric acid or formaline, but I do not think it a healthful drink. Anything of that sort added to the cider must of necessity injure digestion processes.

BEST MATERIAL FOR SPRAYING.—W. A. S., Chattanooga, Tenn. The best material for spraying fruit-trees would depend upon the trees and the special trouble which you intend to prevent. If you are trying to prevent the work of leaf-eating insects, probably the best thing for you to use is Paris green and water, used in the same proportion as for potato-vines, although there are a few plants, especially those of the stone fruits, that will not stand nearly as much Paris green as will potato-vines. If it is a case of sucking insects, like the lice and chinch-bugs, it is a good plan to spray with strong tobacco-water, whale-oil soap or kerosene emulsion. If your object is to destroy fungous diseases, or rather to prevent their spread, the best material to use is probably Bordeaux mixture. If it is a case of spraying for both fungous diseases and leaf-eating insects, the best material is Bordeaux mixture mixed with Paris green. If you will let me know more definitely for what you wish to spray, I will try to answer you more definitely.

NON-PRODUCTIVE PLUMS.—H. V. D., Asherville, Kan. There are many reasons why trees are non-productive. One of the most common in the case of plums is that the varieties are not suitably mixed, so that the flowers are not cross-fertilized, as is necessary in the case of many varieties. This is very commonly so in the case of Wild Goose, Miner and some other well-known sorts. It is doubtful if any plum will do its best unless there are some other varieties near by that flower at the same season. I had a case a number of years ago where trees of the Wild Goose plum were very thrifty, and flowered every year, yet failed to produce fruit. Afterward varieties of several native sorts were planted near by, and when they commenced to flower the Wild Goose trees commenced to fruit abundantly. There are some varieties of plums which are entirely non-productive under any conditions, the flowers not being of the right kind to produce fruit. It is very unusual to have such kinds propagated, and I think it very doubtful if you have anything of the sort, unless you have taken them from the woods or have raised them from seed.

TIME TO PLANT TREE-SEEDS.—L. H. C., Elgin, Wash. In regard to the best time to plan acorns, in my practice I have found it best to plant them as soon as gathered, unless there is danger of the mice or squirrels getting at them. I think, too, that even under such conditions, if the acorns were treated with about a teaspoonful of coal-tar to the bushel—having first wet the acorns in hot water, so that the tar will easily spread over them—and then dried with lime, it would entirely prevent this trouble. In the case of grapes, I should plant the seed in the autumn, or else mix the seed with sand, and bury outdoors until spring, then plant in good, loose soil as soon as it can be worked. The haws should be rubbed in sand and treated as recommended for grape-seed until spring, then sown in some place where the seed can remain for a year after sowing. Cover with several inches of hay, to protect them from weeds and from drying out. I do not know how it will be with the haws of your section, but as a rule they do not start until a year from the time they are planted. The safest way to preserve all kinds of seeds from hardy plants is to mix them with sand in a box, and bury outdoors in a dry place.

In the Field

PLOWING WITH CHECK-LINES

When left-hand breaking-plows are used it is a common custom to fasten a "bearing-off" stick to the outside ring of the bridle-bit of the off-horse with a strap from the inside ring to the trace of the lead-horse. This permits the use of a single line on the leader, and keeps a young horse on the off side under control. The method, however, is bad for the shoulders. An untrained horse will bend his head toward the leader, bringing the draft unequally against the shoulders. Only a trained horse will come up squarely against the collar when "jockied" off and tied back. Check-lines are better, holding a young horse more squarely to the work, and yet giving partial freedom until the lesson has been well learned.

PURE-SEED LAWS

Our Canadian friends seem to be working on the problem of pure-seed laws. According to a press dispatch, the Chief of the Seed Division of the Department of Agriculture is at present engaged "in important tests of adulterated seeds. A staff has been selected to examine and separate all samples bought and sent in by farmers, and when the seeds, weeds, etc., have been separated, the good seed is placed in incubators and the results noted. . . . A bill is being framed for the purpose of protecting farmers and enforcing penalties for the sale of adulterated seeds." All this refers most likely more to grass than to other seeds. Clover and other grass seeds, especially if imported, are often reeking with foul weed-seeds, and undoubtedly many bad foreign weeds have been introduced into new fields all over the American continent by means of imported grass-seeds. We have troubles of our own, and weeds a plenty, without having to go to Europe or Asia for them. There can be no objection to a law authorizing the Commissioner of Agriculture or his agents and the experiment stations to confiscate and destroy all grass or similar seeds found on sale anywhere which contain weed-seeds. The best help for the farmer, as in most other cases, is self-help. The use of a common magnifying-glass, or even a good pair of sharp, natural eyes, will enable anybody to discover whether the grass-seed he is about to buy is pure and free from suspicious admixtures. If the seed is not strictly pure, why, don't buy it. Otherwise, and in respect to the general run of seeds offered by our seed-merchants, we have one of the best safeguards in the reliability and respectability of the seed-houses with which we deal, in their desires to retain trade and please the customer, and in the formidable competition which forces every one of them to furnish good and clean seeds or go out of business.

GRASS-SEEDING

In many parts of the country last harvest it was found that the seeding of timothy and clover in the wheat had proven a failure, so that the wheat-stubble showed but scanty promise for a hay crop next summer. Our farms are not rich enough, nor as farmers are we wise enough, to make accurate calculations for the future, as is shown by the fact that while a given method of farming, system of rotation or treatment of the soil or crop is followed year after year, uniform results are not produced, the element of uncertainty in our business being the one thing upon which we can unfailingly depend. I think, however, that the time will come when we will have our land so fertile, our business so thoroughly mastered, and our practices so reduced to scientific certainty, that the harvest may reasonably be foretold from the seed-time.

I have instanced the grass and clover seeding in wheat. It is possibly asking too much, even under favorable conditions of the soil and weather, of the tender new plants of clover and grass to grow and maintain their position on land where an aggressive crop of wheat is growing with all its might. The wheat has the first and most vigorous claim on the soil-fertility and moisture. It grows quickly and strongly, and its demands are exacting, so that it becomes to the observer not a wonder that the shyer plants sometimes partially or wholly fail, but a marvel of Nature that they ever succeed.

I have generally been successful in thus securing clover and timothy seeded in the wheat—the timothy in the fall, when the wheat is sown, the clover being sown in the spring. During the frozen period of winter I cover the wheat with a thin coat of manure, which settles well down around the wheat-plants, stimulating their growth, affording them some winter protection, and at the same time acting as a saving mulch to the little grass-plants.

After the wheat is harvested, the stubble is not pastured, and the grass is generally given another light manure-dressing. The mowing-machine, with elevated bar, clips the weeds before they make seeds, and by cutting back the grass or clover growth encourages root development and extension. By this method I have encouraged a most discouraging prospect into a fine harvest.

I count that this is about all I may do under this system of making a hay crop; but even that sometimes comes into the realm of failure, so that I am about ready to abandon the old method of sowing the grass with the wheat. I am strengthened in my notion of dropping the old plan by my knowledge of the success of a new and much better one. I have frequently sown clover in the spring, on well-prepared land, without a nurse crop, and had most satisfactory results, but not until the second summer after sowing. Sometimes, where the land was not too foul with weeds, I have harvested a light crop of hay the same season as the seed was sown; but unless the soil and weather conditions are very favorable, the first year's crop does not amount to much.

On the newer plan, a small field from which wheat was harvested last summer, and on which the fall-sown timothy and spring-sown clover were total failures, was plowed after harvest, and with harrow, roller and drag was made into a fine seed-bed. About the first of August nine quarts each of timothy and clover mixed were sown, first lengthwise, then crosswise of the field. The sowing was followed by a light harrow, and at this writing the timothy and clover stand as thick and vigorous as is possible for them to grow. This is the plan followed for years by my friend Rev. J. D. Detrich in his garden-farm near Philadelphia, where the laugh of the harvest always comes from the tickle of the hoe. I believe, however, that it can be followed with as much comparative success on our larger and less intensely cultivated farms.

The too-busy farmer will object to the after-harvest plowing, but the cost of the clover and timothy seed sown in the wheat, and from which I have received no returns, would quite pay for the summer preparation of the land. Besides, in the one case there will be no harvest, and in the other a splendid one. And may I not add that a good plowing is always worth its cost? W. F. McSparran.

WHOLE FAMILIES HAVE

gone "mad" over our "15 Puzzle;" young and old alike are sitting up to all times of the night, so great is the fascination in moving the blocks. "Ping-Pong" (so named from the sound of the balls when struck by the racket) had a wonderful run, but the "click" of the blocks of our "15 Puzzle" has such an irresistible fascination that the "15 craze" bids fair to far surpass it in popularity. People say there is a sort of mesmerism in the sound, and that they work at it for hours at a time, and make up new games of their own. Of course they are all trying for the $1,000.00 prize we are offering on page 20 of this number.

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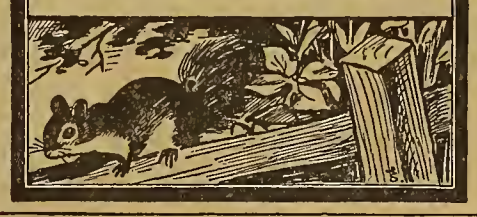

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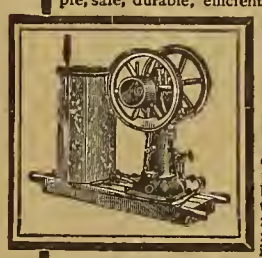

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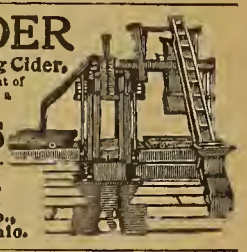

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Live Stock and Dairy

DRIED BLOOD FOR FEEDING CALVES

SINCE dried blood is such a cheap and effective remedy, it will pay any one who raises calves by hand to have a little available whenever a calf shows signs of disorders in its digestive tract.

Dried blood is not only good for weak calves, but for calves subject to scours. With seventy head of young calves under experiment at the Kansas Experiment Station during the past year, there has not been a single case of scours that dried blood has failed to check.

One of our cows gave birth to a calf weighing eighty-six pounds. On account of the poor quality and quantity of the milk, the calf did very poorly. With the ordinary treatment accorded our calves he grew worse, and when seventy-nine days old weighed only ninety pounds, or four pounds heavier than at birth. He was given castor-oil, laudanum, fresh eggs, calf-meal, and as a last resort dried blood. With the blood the calf commenced to improve, and in a short time was gaining at the rate of nearly fourteen pounds a week. When a year old he weighed five hundred and seventy-eight pounds—a pretty good record for a calf that gained only four pounds for the first seventy-nine days of its existence.

In feeding dried blood, one teaspoonful at a feed is sufficient. This should be continued until the scours disappear. In case of a weak calf the allowance may be gradually increased to one tablespoonful at a feed. To prevent the dried blood from settling at the bottom of the pail, it may be stirred in the milk while the calf is drinking, or the milk and blood may be fed immediately after being thoroughly mixed.—Kansas Experiment Station Bulletin No. 90.

NEW FATTENING METHODS

At the Kansas Experiment Station an experiment was made in feeding cattle where hogs did not follow. Results were surprising. The best was an average gain of one hundred pounds for six hundred and eighty pounds of grain, or 8.2 pounds of gain for each bushel (fifty-six pounds) of grain eaten. This was made with a car-load of steers fed corn-meal and cut alfalfa hay. This gain was made by grinding the corn, cutting the hay, feeding the grain and hay mixed, keeping the steers in well-drained yards, feeding them regularly with fresh, palatable feed, giving them comfortable shelter, and having clean, ice-free water always within their reach.

This shows a saving in grain of from twenty-five to forty per cent over the usual methods of fattening steers. This experiment was the first in developing methods of fattening steers that would save grain, and it is improbable that the method that will make the greatest saving was discovered at the first trial. It is reasonable to consider that further trials will develop even more economical methods. It is almost certain that a mixture of grains will give better results than corn alone.

"The business of fattening steers has reached a turning-point," says Professor Cottrell, who made the experiment. "With cheap land and cheap corn the old method of shoveling half a bushel of ear-corn a day to each steer, and paying little attention to the roughage, sometimes paid. It will not pay now. Good corn-land near Manhattan, Kan., costs seventy-five dollars an acre, and further east in the corn belt the cost rises to one hundred or even to one hundred and fifty dollars an acre. Feeders on this high-priced land will have to do what manufacturers have already done—more thoroughly utilize the materials which they handle. With the old methods a large portion of the corn was not digested by the steer, and this kept him in an unhealthy condition. The old methods gave four and one half to five and one half pounds of gain from a bushel of corn. The best method used in this experiment gave more than eight pounds of gain a bushel."

The feeder should adopt methods that are along the best lines shown in this trial, and then feed well-bred cattle that produce the greatest per cent of high-priced cuts.—Live Stock World.

FRESH AIR FOR ANIMALS

We incline to run to extremes in our thinking and practice. In the past we have been taught the value of warm quarters for most kinds of live stock. The offices performed by heat-giving foods have been pointed out, and there has been much allusion to the folly of trying to warm up a barn-yard by turning animals into it on a winter's day. We have been advised not to use extra feed for such a purpose, but to keep the animals in warm quarters. The advice seemed good, but it marked the swing of the pendulum away from the old conditions of winter exposure, and it swung so far that many supposed the closer the stable and the quieter the animals, the better for the pocketbook of the owner, forgetful of ventilation and exercise. Recently has come the backward swing of the pendulum, and we are told that fresh air is more important than protection. Where is the truth of the matter? That is what all practical men want. A little examination may help us to it.

The demand for warm quarters was based upon reason. The heat created out of the feed is the only source of warmth for animals in cold weather, and the more such heat is confined about them, wasting little into the outside air, the less feed is needed to maintain warmth. This was easily understood. But the usual effort was to retain the heat by preventing the entrance of fresh air, and this lack of ventilation has brought disease. Not only that. Exercise is necessary to perfect health. The fattening animal may lay on flesh in a close stall, but exercise is needed to retain perfect health for any great length of time. In breeding-animals and in young things hardiness is a consideration, and that is not gotten in close quarters. Some experiments have been made with fattening steers, and no gain was gotten from close housing. In these cases corn was fed freely, and the amount of grain needed to lay on fat furnished a supply of heat sufficient to keep the animals comfortable in feeding-yards. It does not follow that cows carrying less fat, and growing stock, would be so comfortable in the open. It is foolish to go too far along this line, subjecting animals to undue exposure. The corn-fed steer may not chill in a day that makes us shiver in our overcoats, but a cow will show her discomfort, especially in a raw wind. So will any farm-animal, except the sheep, if it is not very fat. Physical comfort is an essential in economical feeding.

Cold winds striking a wet body are penetrating and chilling. Our live stock require protection from stormy weather and from any degree of cold that produces discomfort. On the other hand, they need pure air and some exercise. Better systems of stable-ventilation will help to give change of air, and exercise should be given only when the animals want it. A cow humped up by the side of the barn to withstand a cold wind is not getting exercise, even if she is out of doors. She is telling us as plainly as she can that she should have been left in her stall that day if there were no roomier quarters indoors for her.

Let us study the matter of animal comfort. If the weather makes the stable the preferable place, then get pure air into it, and do not force the live stock to remain chilled on the outside for the sake of the air. There should be protection from storms, and after that the warmth of stables should be proportionate to the needs of the animals, with the thin dairy-cow more warmly housed than the corn-fed ox. Pure air and exercise in comfort should be regarded as necessities. But do not let the agitation for fresh air lead us to return to the exposure and hardships for our live stock that were being rapidly banished. DAVID.

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Live Stock and Dairy

COW CATCHERS

Never forget that the cow is of the feminine gender, and that she appreciates kind, generous treatment.

The way to have clean milk is to keep it clean. Milk is like a good name—much easier to keep clean than to get clean.

A very poor cow can often be made a pretty good one by feed and care. A very good one can be spoiled by lack of either.

When I was a boy, and the hired girl did the milking, I always thought the cows liked the hired man to be in love with the milk-maid, for then the stables were kept cleaner.

Plenty of clean water is as essential to the profit and health of the cow as plenty of wholesome food. To withhold a bountiful and regular supply of pure water is to discount the possible returns of the cow; to not have the water pure is business foolishness—the cow's system is not constructed on the plan of a filter.

CHOICE GOODS

Shorthorn; three years old; weight, 2,300 pounds. First in class, and champion over the circuit; champion shorthorn bull at the International Stock Show; never beaten. Owned by Colonel G. M. Casey.

The cow that in a year will give ten times her weight in milk and half her weight in butter, and perpetuate her kind in an offspring, is a friend for the dairyman to tie to.

Such a cow is an exemplification of Nature's bounty to man. She should be called My Lady Bountiful, and should be fed forty pounds of good corn silage, two pounds of corn-meal, six pounds of good wheat bran, two pounds of cotton-seed meal or gluten-meal or four pounds of oats, and in addition all the bright, sweet, early mown hay she would eat.

She should lie down on a clean, dry bed, and have a warm stable and pure air. She should be owned by a gentleman who has as much sense as his cow has generosity and industry.

Her offspring should have a great sire, who had a good mother, and should be given every chance to equal and emulate the good of its mother.

W. F. McSparran.

ALL THE COW CAN DO

Sometimes we wonder why there is so much difference between what our cows bring in for the season and the amount other men report from their dairies. We think we take good care of our stock—feeding them properly in due season, and giving them the best we can afford—and yet we fall far short of coming up to the figures published by our neighbors. How is it? We do not understand it, and perhaps we doubt the truth of the statements given out. We think our cows do the best they can, and so indeed they do, with the material given them.

Right there we have a clue to the secret of the success of our fellow-farmers. They feed better than we do, and naturally they get more in return. But can you take a given cow, and by varying her feed make such a difference in her milk and butter product?

One of the best farmers of New York State did do just that. He took a certain number of cows, and by feeding them up to the work, increased their butter product something like one fourth in the course of a few years. He fed those cows some grain the year round. You and I might think that an unprofitable piece of business. We stop feeding in the spring, when the cows go out to pasture; he did not. Every day, when the cows came down at night, they found in their mangers a good ration of corn-meal. But did this pay? He says it did, and he is a truthful man. Can we figure it out for ourselves? Here is a cow that is making say two hundred pounds of butter, worth this year forty dollars. It has cost us one third of that sum to get the butter, or about fourteen dollars, leaving us twenty-six dollars profit. Now suppose we double the quantity of feed we give our cow, making it up to twenty-eight dollars. Now we are getting not less than one half more butter, or say three hundred pounds, though the probability is we will get even more than that. This butter is worth, at the same price, sixty dollars, leaving us a profit of thirty-two dollars, as against twenty-six under the old style of feeding. Twenty cows giving us the same value of butter would put one hundred and twenty dollars more into our pockets than we had the old way. And the work and care would be about the same. Does this pay? A man ought to be able to answer this question without racking his brain very much.

E. L. Vincent.

RUBERTA

Shorthorn cow; weight, 1,810 pounds. First at six fairs, and first in class at the International Stock Show. Owned by Colonel G. M. Casey.

FOOT-AND-MOUTH DISEASE

WARNING TO ALL OWNERS OF CATTLE, SHEEP AND SWINE

This disease is an excessively contagious malady peculiar to ruminating animals (cattle, sheep, goats, deer) and swine. Rarely is it transmitted to man. It is characterized by the eruption of vesicles, or blisters, in the mouth, upon the heels or between the toes, and upon the teats or udder. The appetite is depressed, the milk-flow diminishes, the animal loses condition and becomes lame. After a day or two the vesicles break, peel off, and leave a raw surface that may heal in a few days, or, especially upon the feet and teats, that may remain sore for a long time, and lead to serious complications. The death-rate is very low, but it attacks the whole herd, and many animals are seriously damaged, so that the loss to the herd-owner is heavy.

The symptoms of this disease most obvious to stockmen are sluggishness, shivering, poor appetite, stiffness or lameness, collection of saliva upon the lips, slavering, slobbering or drooling, sucking and swallowing motions of the mouth and throat, smacking of the lips, blisters inside the lips, upon the gums, tongue or roof of the mouth; later, raw sores in the same places. Blisters and sores may also form upon the teats or udder, and upon the heels and between the toes. The flow of milk lessens or ceases, and the subject usually loses weight. All these symptoms may not be present in the same animal, and all are never present in an animal at one time. Moreover, the symptoms occur in varying degrees of severity. They may be very mild or very intense. The later symptoms may be intense lameness, emaciation, sore teats and garget. With sheep and swine the feet are chiefly affected.

The most important matter is to prevent the infection of animals not yet exposed. This can be done by avoiding the purchase of affected stock; by excluding all outside animals from the herd or flock; by each person who comes near healthy stock avoiding contact with diseased animals or the places or things contaminated by them; by excluding visitors from the cow-stable, sheep and hog pens, and by preventing the access of strange or stray animals, which may carry the virus on their feet or hair, although they are themselves in good health. Neither cows nor bulls should be moved from one place to another for service.

Should the herd or flock become infected, the appearance of the first evidence of disease should be immediately reported to the chief of the cattle bureau, a state cattle commissioner, the local inspector of live animals, or to the Bureau of Animal Industry office, 147 Milk Street, Boston, Mass.—From Circular No. 38, Bureau of Animal Industry.

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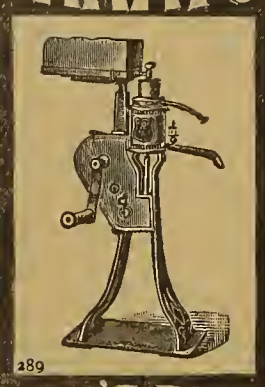

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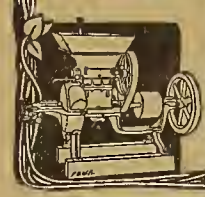

make your grain go farther and stock improve faster. Grind corn in the ear or other grain in any form. Strong, exact, reliable. Soon save price of mill. We make also sweep and power mills; all are leaders. Write for our new catalog 50. Mailed free.

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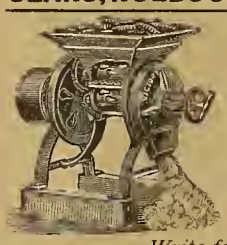

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Feed is fuel to the animal economy. It is burned up to supply internal heat. If it is heated (cooked) before it goes into the animal's stomach it saves that much fuel (feed).

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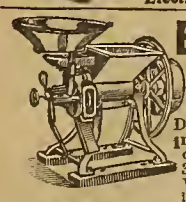

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Productive soil, delightful climate. Free catalogue.
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Poultry-Raising

By P. H. JACOBS

COLLECTING THE DROPPINGS

If the droppings are collected daily, mixed with an equal bulk of dry dirt, and stored in barrels, they will be in excellent condition for use in the garden when required. The admonition to keep them dry should not be followed. If allowed to become dry in the poultry-house, portions soon reach an insoluble condition; but if collected daily, and kept somewhat damp (not wet), they will not lose ammonia, and will give better results when applied to the soil.

FEED MEAT

Meat is highly nitrogenous, and supplies the hens with elements that are lacking in grain. Lean meat, such as waste scraps from the butcher, liver, etc., will cost but little compared with the increased number of eggs that may be secured. When only grain is allowed the hens they will be unable to convert it into eggs unless "balanced" by foods of a more nitrogenous character. Although the price of meat is apparently high, yet one egg more a week from each hen will be sufficient to pay for the luxury afforded them.

WARMTH AND CHICKS

The cause for many of the ailments of young chicks is cold; that is, they have been at some time chilled. A cold night, sudden change of temperature or damp weather, though not noticeable at the time, often affects young chicks, and they get chilled, even if only for a short while. In a few days the bowels are affected, and the trouble is erroneously attributed to the food. It should be borne in mind, then, that the young chicks should never be allowed to become chilled, and that they should have plenty of warmth at all times.

CASH IN WINTER

During the past, when prices of farm products were low, and but a bare profit was made, many farmers have found the well-filled egg-basket a source for cash when snow covered the ground and no receipts were possible unless from the cows. Yet the fowls are relegated to a secondary position on the farm, although they are capable of giving a larger profit in proportion to capital invested than are larger stock. There is a large amount of food that can be utilized for poultry that would be wasted without their aid, and the farmer will find that any attention bestowed on his fowls during the cold period of the year, when other work is not pressing, will be returned by them fourfold.

SUBURBAN FLOCKS

Hundreds of small flocks are to be found in the suburbs of cities and towns, and it is possible that the number of fowls raised by those who have but limited facilities equals the poultry raised on the farms. The main difficulties are those of annoyance from intruding flocks of neighbors and the inclination of some fowls to disregard fences. The best breed for suburban purposes is the Brahma or Cochin, as these breeds cannot fly over a four-foot fence, and are contented in confinement. They rank as excellent layers, though they must not be fed too heavily on grain, but should be made to work and scratch in litter, in this way securing exercise and promoting egg-production.

HENS AND PULLETS

If pullets cannot be hatched early it will be an advantage to retain the hens, as they will perform satisfactory service until four years old. While the pullet may surpass the hen at times, yet much will depend on the mode of feeding. One reason why hens seem to fall off sooner than pullets is that the hens are mature, and hence fatten more readily, the pullets being in a growing condition; and as it is detrimental to laying hens to have them too fat, overfeeding may be at the foundation of the difficulty. There is also an expense incurred in raising the pullet that supersedes the hen, and this cost must be considered. It is less expensive, therefore, to keep a hen for two or three years, or even longer, than to raise a lot of pullets from chickenhood every season.

GREEN AND DRY BONES

There is a wide difference between green bones from the butcher and the dry bones that have become bleached. The former are flexible, cannot be ground easily, contain the natural juices, and are easily digestible; the latter are brittle, can be ground into meal, and have lost the larger portion of their nitrogen. The green bones must be reduced with a bone-cutter. The fact that green and dry bones differ demonstrates that during the process of drying there has been a rearrangement of particles, and portions that were very soluble are no longer so. Dry bones are excellent for poultry, but better results will be obtained by the use of green bones, which contain not only lime, but a large proportion of nitrogen, making them valuable as food for laying hens.

CONSTRUCTING THE POULTRY-HOUSE

Build the poultry-house so that you can stand up straight in any part of it, except that it might have a "lean-to" on the south side, with roofs of glass or large windows, and which should be as high as it is convenient to have it. Give as much slope to the glass as possible. More diseases and trouble from lice come from houses that are too low and that cannot be properly whitewashed and scalded out with hot whitewash than from many other causes. Then they are unhandy to clean, and are liable to be neglected, being too low for putting in chaff, leaves, etc., for the hens to scratch in. Low roofs make the necessary work disagreeable, with good hard bumps against the hen-house ceiling. Put the poultry-house roof up high, and do not make the blunder, which is made by many, of having it too low. Something depends on the capital to be invested, however, as the "best" house is not always within the province of one with limited means; but another point to observe is to endeavor to secure for the least money as much space as possible on the floor. Every poultry-house for winter should be well lighted, or have a shed attached in which the hens can work and scratch. It is an old proverb that a scratching hen is a good layer; which is true, because by scratching the hen keeps herself in laying condition, increases her appetite, and wards off cold. Warmth in the poultry-house will promote egg-production, and to induce hens to scratch they must be warm and comfortable.

Soft-shell Eggs.—M. R., New Albany, Ind., asks "the cause of his hens laying eggs with soft shells." It is an indication that the fowls are excessively fat, probably due to feeding grain exclusively.

Sore Heads.—A subscriber at Macon, Ga., desires to "know the cause of sore heads, and a remedy therefor." The difficulty is due to minute parasites. Anoint the heads once a day with mixture of cedar-oil and crude petroleum, equal parts.

Swollen Eyes.—J. F. S., Portsmouth, Ohio, "has a flock of eighty fowls, some of which have the right, and some the left, eye inflamed and swollen." The cause is probably due to a draft of air over them at night. Anoint eyes and faces with camphorated oil, and remove the cause.

Fleming's 3 are free if they fail.
SPAVINS CURED IN 45 MINUTES.
Fleming's Spavin Cure has never yet failed. One treatment only usually needed. Not severe, can't harm, does not scar. Every claim made good or no pay. Nothing else at all like it. You can't afford not to write us today. Equally good for Curb, Splint, Ringbone, etc.
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The Grange

By MRS. MARY E. LEE

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The next National Grange is to be held in New York State, probably at Syracuse. St. Louis will get it in 1904.

It is Governor Bachelder of New Hampshire now, as well as National Lecturer. Either position Mr. Bachelder will fill with honor and distinction.

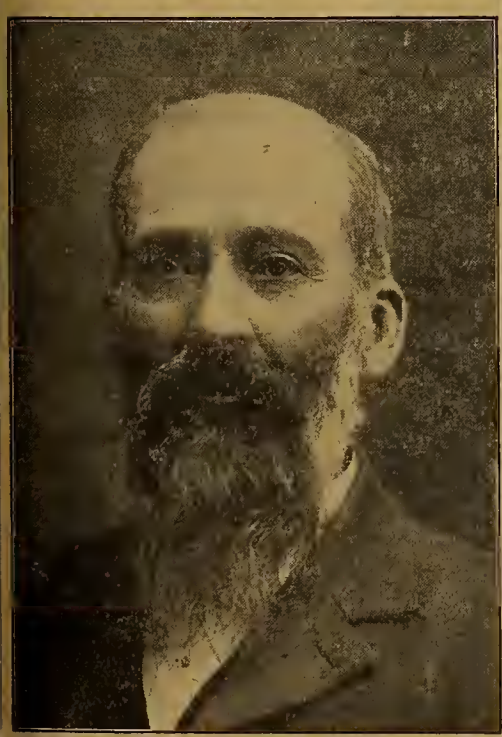
NEW-YEAR'S GREETING

Again it becomes our privilege to extend New-year's greetings to our great family of readers. We hope the year has been both prosperous and gentle with you all. To some may have come hours of deep affliction—they come to all. We pray that out of the grief and despair has blossomed the bright rose of hope. That all will enter upon the New-year with clear insight to see the right, and lofty courage to do it, is our earnest hope. We know the hearts of the people, their zeal, ambition, noble resolves and generous impulses. We know that ofttimes when they would serve the angel of light the angel of darkness exacts the homage. That "what they would do, they do not; and what they would not do, they do." Follow the truest aspirations of the heart, the leadings of the spirit, even though they lead through dark ways. Some day the light will break, the dawn appear, and the blessing of a mind at peace with itself will be yours. That you may follow the light is our New-year's wish. The blessings will be yours.

NEW MEMBER EXECUTIVE COMMITTEE

Hon. F. A. Derthick, Master of Ohio State Grange, was elected executive committeeman, vice J. J. Woodman, resigned. In electing Mr. Derthick the National Grange honored both itself and a most excellent and honorable man. Mr. Derthick is a practical farmer and business man of unquestionable integrity and uprightness. Not a few of Ohio's just and equitable agricultural laws are due to his logical and convincing presentation of facts and reasons for their enactment. He has ever been an able foe of adulteration in food products. He is a college-bred man, as are most of the leaders in grange-work.

Mr. Derthick is a true son of the soil, frank, open, generous alike to friend and



HON. F. A. DERTHICK

foe, honoring good wherever it is found, ready to champion the right, regardless of whether it will bring him abuse or praise, yet withal the kindest of friends. His inquisitiveness is ever acquiring new facts, stripping them of falsities and fallacies, and then marshaling them to his aid in time of need. Legislative-committee rooms will find him ever ready working for the highest good of the people he represents. The grange has always been served by noble men, and never by more able than at the present time. The addition to the official family will add luster to the past achievements.

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This Keystone is the identifying sign of the best watch case made—no matter what it costs. It stands for worth and wear—for beauty equal to an all-gold case, at a much smaller price. The

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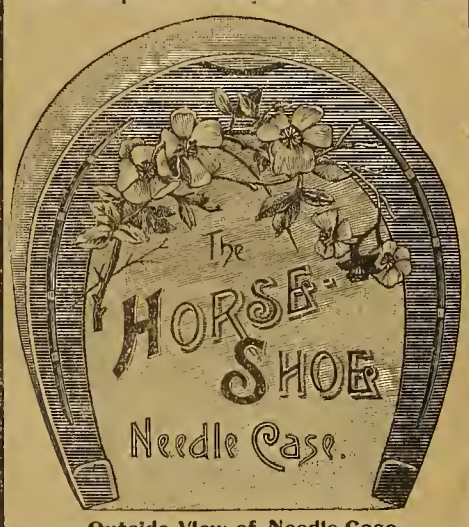
With Complete Assortment of Fine Needles



Outside View of Needle-Case
Very much reduced in size.

Every woman will appreciate this useful and handsome article. The case is

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Its general shape is that of a horseshoe, hinged at the base of the shoe. The back also has a design in colors. Open, this case measures 9 inches long by 4¼ inches wide.

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The eye is so shaped as to be threaded with the greatest ease; has no sharp edge to cut the thread. Another valuable feature is a groove-shape given to the end of each needle at the eye, so that the thread will follow the needle through any cloth, heavy or light, without the slightest strain. Order as No. 122.

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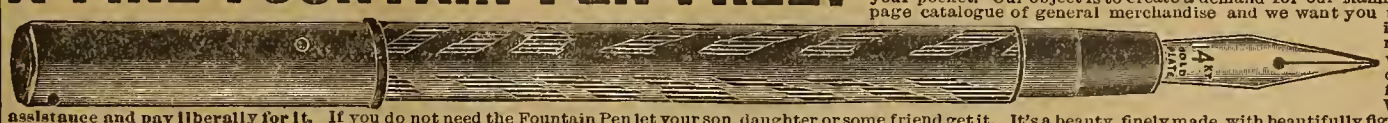

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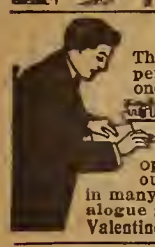
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Around the Fireside

REED'S MEMORY HONORED

On December 8, 1902, the House of Representatives paid a high tribute to the memory of Ex-Speaker Thomas B. Reed by the adoption of the following resolutions:

"Resolved, That the following minute be spread upon the record of the House of Representatives:

"Hon. Thomas Brackett Reed died in Washington on December 7, 1902. For twenty-two years he had been a member of this House; for six years its Speaker. His service terminated with the LVth Congress. Within this chamber the scene of his life's great activities was laid. Here he rendered services to his country which placed him in the front rank of American statesmanship. Here he exhibited characteristics which won admiration and compelled respect. Forceful ability, intrinsic worth, strength of character, brought him popular fame and Congressional leadership. In him depth and breadth of intellect, with a full and well-rounded development, had produced a giant who towered above his fellows and impressed them with his power and his wisdom.

"A distinguished statesman, a lofty patriot, a cultured scholar and incisive writer, a unique orator, an unmatched debater, a master of logic, wit, satire, the most famous of the world's parliamentarians, the great and representative citizen of the American Republic, has gone into history.

"Resolved, That in honor of the distinguished dead, the House now adjourn."

ORIGIN OF THE RAILWAY MAIL

SUGGESTED BY A DRY-GOODS BOX RIGGED UP TO ACCOMMODATE THE PONY EXPRESS

An officer of a great railway system who has worked his way up from the bottom was rummaging the other day, and found a memorandum which is the basis of what follows:

"This mem," he said, "dates back to the genesis of the railway mail. The man who made the first step in this wonderful improvement was, unless I am very much mistaken, the Democratic postmaster in St. Joseph, Mo., at the breaking out of the Civil War. He was appointed by Buchanan.

"The Pony Express, which was also started from St. Joseph, suggested to the postmaster a crude arrangement from which was evolved our present railway system. The postmaster found it necessary to arrange his mail so that it could be handled quickly on the arrival and departure of the Pony Express rider.

"He rigged up a lot of pigeonholes in an old dry-goods box, and put it where he could have the mail at the ends of his fingers. Each pigeonhole was labeled with the name of a post-office.

"Soon after this arrangement, a similar one was rigged up in the baggage-car of a railroad train, and the man in charge distributed his mail for towns along the line by putting it into the pigeonholes in a pine box.

"Crude as that was, it facilitated business. It was the cue for the inventive genius who improved upon it, and, of course, his improvements have been improved upon until we have now the best railway-mail system in the world.

"All this has been brought about within the recollection of men who are not yet old. From one man who experimented with it the service has grown so that it now requires a force of twenty-five thousand men.

"If I am correct about the postmaster who started the idea, his name was Davis, and he was a native of Richmond, Va."—New York Sun.

ACRES OF DIAMONDS

THE SOUTH AFRICAN MINES

The celebrated South African mines owned by the De Beers Company, which lie in proximity to each other, were discovered by accident, and the world's experts were confounded year after year as the digging showed that instead of the diamonds diminishing in number they were really increasing the further down the work was carried. Nowhere else in the world had diamonds been found under such peculiar conditions. Finally, as the result of the persistent working of these mines for twenty years, the whole science of diamondology has been changed, and it is now accepted truth that the place where diamonds are most likely to be found is in the crater of an extinct volcano. For such, it is agreed, are the five mines of the De Beers Company, lying in a group about Kimberley; namely, the De Beers, Kimberley, Dutoitspan, Bultfontein, and Jagersfontein. The surrounding country is level veldt, which at one time was evidently the bottom of a lake or sea.

The five extinct craters lie a few feet below the surface of this veldt, with nothing to indicate their existence beyond a slight elevation of the ground into an ordinary kopje. These extinct craters or pipes from the underground regions penetrate layers of rock and gravel, and their sides are well defined. They are small in diameter, neither increasing nor decreasing as the excavation has been pushed, and they extend to unknown depths. Up to the present they have been examined to a depth of something over fourteen hundred feet, with no indication of a diminution of the supply of diamonds. The hard blue clay in which the diamonds are found in these extinct craters is supposed to have been a kind of soft mud squeezed up to the surface just before the subsidence of the volcanic action. When it was stated, by the way, that Mont Pelée was throwing out mud, there was an instant desire at Kimberley to examine it for precious stones. In the early days of the Kimberley mines the diamonds were found in small numbers in the "yellow ground" which had come to be accepted as their only abiding-place in South Africa. When the bottom of the "yellow ground" had been reached, at a depth of from fifty to sixty feet below the surface, it was supposed that diamond-digging in the craters had come to an end. But the hard underlying rock was cut by accident, and it was found, to the delight of the miners, that this also was diamond-bearing. It was a breccia composite, essentially like the "yellow ground" above, but much more compact and hard, and of a prevailing bluish slate-color. This was the famous "blue ground."

The first diamond had been found in South Africa in the spring of 1867 by a little boy on the banks of the Orange and Vaal. He was playing with the pretty pebble in the sunlight, and his mother took it to a neighbor, Schalk van Niekerk. The latter offered to buy it, but the good vrou said, "You can keep it if you like." Van Niekerk showed it to John O'Reilly, who undertook to see if it could be sold. O'Reilly showed it to Lorenzo Boyes, who found it would scratch glass, and said he thought it was a diamond. From Colesberg Boyes sent it in an open envelope through the mails to Dr. W. G. Atherstone, a noted mineralogist living at Grahamstown. He asserted positively that it was a diamond worth twenty-five hundred dollars, but he was laughed at. Van Niekerk immediately bought it from the boy finder for five hundred sheep, ten oxen and a horse, and sold it for fifty-six thousand dollars to Lilielfeld Brothers, of Hopetown, who in turn sold it to Earl Dudley for one hundred and twenty-five thousand dollars. The story that the first diamond had been found in the plaster of a house is declared a mistake by Mr. Williams, who, however, says that when the rush to the diggings commenced, a party of men saw bright sparkles on the wall of a homestead, and actually found that its plaster was made out of diamonds. These South African diamonds have smooth sides and a natural sparkle, and were long known to the negroes and Boers as "blink klippe," or sparkling stones. On the Vaal and Orange Rivers the first discovery of diamonds as a result of the systematic washing of the soil by miners was made in January, 1870, and an immediate rush commenced from all parts of the earth. The placer mining continued until the following autumn, when a fifty-carat diamond was found on the Jagersfontein farm, and soon after that the discoveries of neighboring Dutoitspan, Bultfontein, De Beers and Kimberley were made.—New York Times Saturday Review.

CURIOUS AND WONDERFUL

The Philippines are rich in timber, hemp, rubber and tobacco.

Iridium, which costs seven hundred and eighty dollars a pound, is the hardest metal known.

Dust-storms annually do an immense amount of damage in Australia.

Uranium is a metal used in the glass and pottery business, and costs eighty-six dollars a pound.

The best timber known for ship-building is teak, a forest-tree common in India.

The French grow chestnuts that are from two to three times as large as the American varieties.

Palladium is a metal used for the mounting of astronomical instruments, and costs four hundred and eighty-two dollars a pound.

Lithium is a metal used only in medicine, its salts being valuable in rheumatic affections. It costs eleven hundred dollars a pound.

Despite laws against adulteration, "olive-oil" is secured from the cotton-plant, marmalade from the turnip, and cherry jelly from the foot of a calf.

The most healthful state in the Union is Iowa, with a mortality rate of 9.2 a thousand. The least healthful state is Louisiana, with a mortality rate of 20.65 a thousand.

Mrs. Alexander Hamilton had the first ice-cream in the city of Washington. She used to tell, with amusement, of the delight with which President Andrew Jackson first tasted it.

Attar of Ylang Ylang, which rivals the attar of roses as an exquisite perfume, and sells at forty dollars to sixty dollars or more a pound, is the product of an Asiatic tree that reaches its highest development in the Philippine Islands.

SPORT FOR EVERY ONE

On page 20 of this paper we illustrate the celebrated "15 Puzzle," and offer $1,000.00 in cash to the first person who will solve Puzzle No. 1 correctly and in the fewest number of moves and send to us before January 20th.

We consider this one of the greatest puzzles ever invented, and an intensely interesting problem for the old or the young. For Puzzles Nos. 2 and 3 we offer smaller prizes.

These fascinating puzzles will furnish amusement and entertainment for the entire family. You may be able with these blocks to invent new games of your own. Get a puzzle and try for the cash prizes. See page 20.

She was a maiden fair to see,
As on the chair she sat;
But that cut no ice with me—
She was sitting on my hat.
—Chicago Daily News.

Sunday Reading

GOD WILL USE IT

No good deed, no genuine sacrifice, is ever wasted. If there be good in it, God will use it for his own holy purposes, and whatever of ignorance or weakness or mistake was mingled with it will drop away as the withered sepals drop away when the full flower has blown.—Frederic W. Farrar.

TRANQUILLITY

Who does not love a tranquil heart, a sweet-tempered, balanced life? It does not matter whether it rains or shines, or what misfortunes come to those possessing these blessings, for they are always sweet, serene and calm.

That exquisite poise of character which we call serenity is the last lesson of culture; it is the flowering of life, the fruitage of the soul.

It is as precious as wisdom, more to be desired than gold—yea, than even fine gold. How contemptible mere money-wealth looks in comparison with a serene life—a life which dwells in the ocean of truth, beneath the waves, beyond the reach of tempests, in the eternal calm!

How many people we know who sour their lives, who ruin all that is sweet and beautiful by explosive tempers, who destroy their poise of character by bad blood! In fact, it is a question whether the great majority of people do not ruin their lives and mar their happiness by lack of self-control. How few people we meet in life who are well balanced, who have that exquisite poise which is characteristic of the finished character!—Success.

A FINE ANSWER

From the Alaskan mines comes a story which is worth repeating. A young Swede whose opportunities had been so limited that he was nothing but a stable-boy before he went to the mines was fortunate enough to secure a good claim and to dig a considerable amount of gold out of it. His partner, also a Swede, asked him one day, "What are you going to do with your money?"

"I mean to do more for the world," was the quiet answer, "than the world ever did for me."

He meant it, too, for this ex-hostler has since given something like fifty thousand dollars to endow a college and a hospital in the Far West.

The more one considers the answer and the deed, the nobler they appear. So many men ask, bitterly, "What has the world ever done for me?" and thus justify the spending of their all upon themselves. So many workers say, impatiently, "Why should I do better work than the world pays me for?" and thus toil grudgingly on. So many souls quarrel with life because it does not give them all they desire, and thus become self-pitying, self-indulgent failures. How different the spirit of this Swedish stable-boy, whose generous soul accepted the hardness and indifference of the world, asked nothing from it, but desired all the more to benefit it and make it a better place for others than it had been for him! —Wellspring.

PLEASANTRIES ABOUT PREACHERS

"Deacon," said a minister out West, after a heavy sermon, "I'm tired."

"Indeed, then," replied the Deacon, "you know how to pity the congregation."

A minister in San Diego the other day startled his audience by saying, "I have forgotten my notes, and shall have to trust to Providence, but this evening I will come better prepared."

A minister made an interminable call upon a lady of his acquaintance. Her little daughter, who was present, grew weary of his conversation, and whispered, in an audible tone, "Didn't he bring amen with him?"

"What is he crying for?" asked the intelligent hearer, as the minister was letting the tears roll down his cheeks.

"Don't you see? I guess you'd cry, too, if you were up there before all those people with nothing to say."

"Good-morning, Janet. I am sorry to hear you did not like my preaching on Sunday. What was the reason?"

"I had three verra guid reasons, sir. Firstly, ye read yere sermon; secondly, ye did na' read it well; an' thirdly, it was na' worth readin' at a'!"

A Scotch preacher, who found his congregation going to sleep one Sunday before he had fairly begun, suddenly stopped, and exclaimed, "Brethren, it's na' fair. Wait till I gang alang, an' then if I'm na' worth listenin' to, gang to sleep; but dinna gang before I get commenced. Gi'e a mon a chance."—The American Weekly.

OLD BEDFORD JAIL

One dismal day in November, 1660, a man not middle-aged was brought to the old Bedford jail, thrust into a dungeon, and left. He had no idea whether he must stay for life, be banished or "have his neck stretched." He was brought several times to trial, threatened, reviled, and then offered full freedom on certain terms that he could not accept. Who was this now famous prisoner of old Bedford jail? He had been a very wicked young fellow, yet no one had complained of him when, as he says, he "took delight in all manner of vice;" but so soon as he was converted, changed his whole course of conduct, and woke up to find the Bible a new and wonderful book, he began to be noticed.

In those days of intolerance no one but a regularly ordained clergyman or priest might publicly teach from the Scriptures or preach. It made no difference that this man's hearers left off drinking, swearing and rioting, or that he himself was a kind neighbor, a good husband, and the father of little children. The day he was flung into prison he knew that poverty and distress must come on them.

Bedford people that day thought that John Bunyan was now to be as useless a man as any in England. But it came to him to write a little book that children and humble working-people could understand. He was allowed a cell with a little light, paper, ink and quills.

The story of "The Pilgrim's Progress" was finished, and stole quietly out into the world. Better days then came for Bunyan, and he was free again, restored to his family, and allowed to teach as he pleased.

To his surprise, edition after edition of his book was sold, and before he died it was read all over England and Scotland and translated into French and Dutch.

If you were to go to Bedford to-day, you would not see the old jail. It has perished with time, but the great oaken door of John Bunyan's cell would be shown you. When men shut him to silence and uselessness two hundred and thirty years ago, God shut him up to grow in holiness, to get ready a help for millions of people all over the world. His written book has been more widely read than any other book except the Bible, and translated into almost every known language. It is by men of judgment declared to be a classic.—Annette L. Noble, in Morning Star.

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Among the many famous cures of Swamp-Root investigated, the one published this month for the benefit of the Farm and Fireside readers speaks in the highest terms of the wonderful curative properties of this great kidney remedy.

"Doctors Said I Had No Kidney Trouble"

Vinton, Iowa, July 15, 1902.

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Gentlemen:—My trouble began with pain in my stomach and back, so severe that it seemed as if knives were cutting me. I was treated by two of the best physicians in the county, and consulted another. *None of them suspected that the cause of my trouble was kidney disease.* They all told me that I had cancer of the stomach, and would die. I grew so weak that I could not walk any more than a child a month old, and I only weighed ninety pounds. One day my brother saw in a paper your advertisement of Swamp-Root, the great kidney remedy. He bought me a bottle at our drug-store, and I took it. My family could see a change in me for the better, so they obtained more, and I continued the use of Swamp-Root regularly. I was so weak and run down that it took considerable to build me up again. I am now well, thanks to Swamp-Root, and weigh 148 pounds, and am keeping house for my husband and brother. Swamp-Root cured me after the doctors had failed to do me a particle of good.

Gertrude Warner Scott

MRS. SCOTT

Sample Bottle of Swamp-Root Sent Free

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If you are already convinced that Swamp-Root is what you need, you can purchase the regular fifty-cent and one-dollar size bottles at the drug-stores everywhere. Don't make any mistake, but remember the name, Swamp-Root, Dr. Kilmer's Swamp-Root, and the address, Binghamton, New York, on every bottle.

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The Housewife

"BREATHE DEEPLY"

THE lungs are largely composed of air-cells, and every little cell is covered with a network of blood-vessels. These blood-vessels are contained in a very delicate membrane.

There are millions of these little air-cells, that take in the air to oxygenize the blood, which is spread around each cell in capillarics, as in thin plates, for the air to reach it.

To keep the lungs healthful it is necessary that the vital forces should go through every portion of them. Beside every capillary, however tiny—not only in the lungs, but throughout the body—there runs a delicate nerve-filament. The man's vital energy must pulse through all of these little nerve-filaments, carrying a thrill of electric force not only to every part of the lungs, but over the entire body to the minutest nerve-terminal. The lungs in deep breathing have wonderful power to keep the great central vasomotor nerve dynamos in action. The man cannot be strong and well without this powerful current of living energy which pulses through the body, forcing the blood in great waves everywhere before it.

Fill the lungs full of air until every air-cell is expanded while you count one or two, and the blood oxygenized by the air is at once reddened, while the old blood is pushed on. The first movement of this red oxygenated blood is to the brain. This is wise, for the brain takes twelve times as much blood as the same weight of muscle for its healthful, functional use; it is also necessary, because the brain manages all the soul's machinery which controls the body.

The reason that one sometimes grows dizzy with breathing is this: As the freshly oxygenated blood moving through the brain meets the old, sluggish blood, there is at first a little opposition, a swerve; but

No. 1

as the pure, freshly oxygenated blood flows clear through the brain, the impure blood is carried down the jugular vein, and after a while, freshly oxygenated, returns again. Oxygen is the great remover of waste material, as well as the great restorer.

In many forms of disease the patient has breathed enough to send the blood to the brain, but not perfectly through the whole brain. Many of the deep basilar veins and sinuses become overfilled and distended with blood, and the circulation is exceedingly sluggish. This leads to morbid mental condition, to habitual headaches, vertigo and other unnatural sensations. Where this condition exists, and there has been only limited breathing during the night, the pulse is very weak in the morning. One lady said, "Oh, I awake in the morning so tired. I can hardly dress myself." Such a patient waking up half dead before breakfast begins to get warmed up by noon, and comes to life about the middle of the afternoon, when the nerve-currents are fairly started. The better way is to start these nerve-currents to their vitalizing and energizing work all over the body by early morning exercise and good, quiet breathing. You cannot start a fire in the stove by turning off the drafts. If you want a good fire it is necessary that you should turn on the drafts.

A man leading a sedentary life—writing all day at his desk, with bated breath—will bring on nervous depression. Carlyle's nervousness was due to working his brain like a giant without vitalizing it by deep breathing or without energizing his splendid muscular system by daily, thorough exercise.

Steady brain-work in time wears the brain, but fretfulness, worry, envy, jealousy, anger and hatefulness tear the brain. The wear and tear together use up the machinery rapidly.

The brain always needs abundant oxygenation, but never carbonization. Abundant oxygen with good food builds, renews and sustains mental power. The carbonization of alcohol in all its forms excites, stimulates and dilates the cerebral vessels, leaving an exhaustion afterward which ever demands increasing stimulation.

Alcohol in all its forms is a brain-excitant, which gives force by spurring the vasomotor activities to unwonted feverish energy. While we are taught scientifically that two or three ounces of alcohol may be oxidized in the human body in twenty-four hours, we must never forget the far more important scientific truth that the physical tissues were never meant to bear this forceful combustion. The fine temper and healthy integrity of both brain and body are gradually destroyed by the continued use of one half this amount. The continued moderate use of alcoholic beverage in the amount as above stated is invariably poisonous.—Cordelia A. Greene.

INFANT'S CAPE

The materials for this beautiful little cape are double cream zephyr, and a bone or wooden hook of uniform size throughout its length.

Abbreviations—Ch, chain; st, stitch; s c, single crochet; d c, double crochet; t c, triple crochet.

First row—Ch 10 sts, turn, d c in every st, turn.

Second row—1 d c, 1 roll st of ten overs alternately, drawing down the roll closely, to form a little ball; break thread.

Third row—D c, missing ch on every alternate roll, to avoid too great fullness; break thread.

Fourth row—T c, roll of six overs, with 2 ch between, alternately, on every third st of ch; break thread. Begin and end both this and eighth row with t c.

Fifth row—D c in every st.

Sixth row—Like second row.

Seventh row—Like third row.

Eighth row—Like fourth row, but on every second instead of third st of ch.

Repeat previous directions in making another solid strip of rolls; break thread, and begin body of cape as follows:

First row—Ch 5, s c in every alternate st; turn.

Second row—Ch 7, s c in center of 5 ch, ch 5, s c in next 5 ch; repeat.

Third row—Ch 7, * cluster of three rolls of six overs each in 5 ch, ch 5, s c in next 5 ch, ch 5; repeat from *, turn. In making the clusters do not work off the rolls with a ch st until the last one. Then withdraw hook, insert through top of first roll, and draw the dropped stitch through.

Fourth row—5 ch on every 5 ch, and on third from cluster of 7 ch, beginning every row with 7 ch; turn.

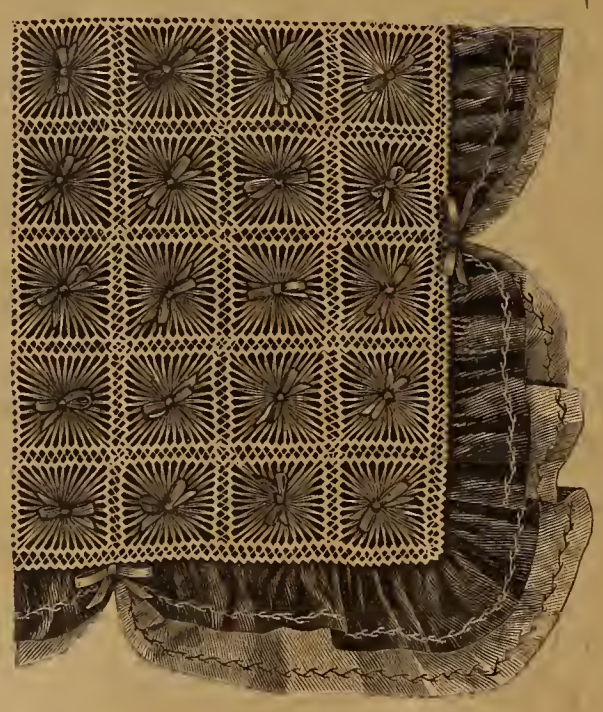
Fifth row—Like third row.

Repeat until there are four rows of the clusters. In the next row of 5 ch widen by making an extra 5 ch on the 5 ch just before the third cluster, miss two clusters, and widen again on the chain before the fifth cluster, and repeat to end of row. This will make the cape sufficiently full. Make nine rows of the clusters, finishing the lower edge with a picot of 4 ch at top of cluster, also at s c on 5 ch between, working around the neck and the front edges with 4 ch, s c on every third st as nearly as possible.

Run ribbon of any shade preferred in the two open rows of the yoke, over t c, under roll st, finishing with bows to suit the taste. JULIA A. WILLIAMS.

A MATTER OF DIET

It is surprising how many people, especially city people who lead sedentary lives, are troubled with constipation. To many this seems a trifling matter, and something that must be put up with; but it is not a trifling matter, as it causes depression of spirits, peevishness and unnatural irritability. It would seem as if this alone were enough to make people regard it



seriously; but this is not all that this condition brings on—many painful diseases can be traced directly to constipation.

There is one class of individuals on whom mainly rests the blame for this condition of affairs, and that class is the housekeepers. Any woman who has a family troubled in this way ought to feel humiliated, but frequently she is one of the self-satisfied kind, who know too much to ever learn any more.

There are families where the cooking is excellent—nice meats, delicate soups, beautifully white bread, delicious puddings and pies and fancy crackers—but after a few days of such a diet one feels as if some bran, cracked corn, or even clean sawdust, would be an exceedingly welcome change.

One may have entire-wheat bread every day, with plenty of fruit, and still be constipated; and when one has been troubled that way for years it requires a very radical change in one's way of living to effect a cure.

In the first place, crackers of every description—except possibly oatmeal or Graham—should be banished entirely from the bill of fare. I know of nothing so bad for this trouble. Then, cream toast and anything which has cooked milk thickened with flour in its composition are very bad, as is white-flour bread.

Different people require different treatment, of

course. I know a woman who tried everything of which she could think for her little girl, finally hitting upon old-fashioned rye-pudding. Many people will be disgusted at the mention of such a plebeian dish, but if it is properly made—enough meal stirred into boiling salted water to make it quite stiff and free from lumps, cooked until there is no raw taste, then eaten with cream and sugar—it is delicious. If it can be eaten with molasses it is all the better.

Every housekeeper should learn to make good brown bread, and then make it often. When I hear any one say, "I don't like brown bread," I wonder what kind of brown bread they have been accustomed to. I never yet have cooked for any one who did not appear eager for it, and visitors act as if it was a luxury. If the members of your family are reluctant, try them with warm brown bread, then with toasted brown bread and with brown bread cream-toast—the brown bread will counteract the evil effects of the thickened milk—and when they get a little used to it make the dry crusts into brewis, simmering in a little water and stirring until stiff and free from lumps.

Then there is johnny-cake—the sweetened kind—and the old-fashioned hoe-cake. The latter when made just right is delicious. The meal—the coarse, granulated Indian meal—should be salted and well scalded, perhaps cooked a little on top of the stove until it is of just the right consistency to spread on the hot griddle, then well browned on both sides.

There are also many varieties of hot gems—those with rye or Indian meal in their composition being best. Fruit should not be neglected.

At first one's family may balk a little at some of these plain, coarse dishes, and there may be cases where delicate stomachs will rebel, but as a rule people with normal appetites will prefer this kind of diet.

Fresh air, especially at night, and exercise are also important factors in overcoming the tendency to constipation. If one will earnestly set herself to cure her family or herself of this trouble she will be amply repaid. If she has felt dull and listless and discouraged—as if life were not worth living—she will notice a most wonderful change for the better when she has cured herself. NONA RUSS.

HELP FOR TIRED EYES

There is a simple and effectual remedy for the woman whose eyes are red and smarting from too much sewing by lamp-light or overstrain of any kind.

Let her ask her druggist for ten cents' worth of equal parts of powdered borax and boracic acid. This amount will last some time. A scant fourth of a teaspoonful dissolved in one cupful of boiling water should be used as a bath for the eyes, applied with a linen cloth as hot as can be borne with comfort. The water should be allowed to enter the eye.

Instead of using a cloth, benefit is often derived from putting the face close to the cup, and tipping the latter so that the eye is immersed in the water. The eye should be opened and shut a number of times under the water. Bathe the eyes in this way night and morning, and the redness of the lids will disappear, the white of the eye will become clear and bright, and the aversion to light, which is often felt in the case of weakened eyes, will be greatly lessened.

This remedy is not a cure for diseased eyes, but merely a relief for weak and tired ones. It is absolutely harmless, and has been recommended by physicians. ALICE B. CHURCHILL.

PILLOW OF RICK-RACK BRAID

The top of this pillow is of rick-rack braid crossed from one side to the other with sansilk thread of pink silk. Through the middle of each one is tied a tiny bow of green bébé ribbon. The lining is of green mercerized cotton, and the ruffle is of two colors—green and pink—catstitched in the reverse color.

The Housewife

A MATTER OF SELECTION

Said a little vulgar girl, who was sneering at another,
In accents that were very far from mild,
"You ain't got no father, you ain't got no mother,
You ain't nothin' but a horrid 'dopted child!"

"I'm quite as good as you," came the answer from the other,
"I was carefully selected from a lot;
But only look at you—your father and your mother
Had to keep you if they wanted to or not!"

BAKING PIES

With even a good receipt, by ignorance of the many little tricks that good cooks often find out for themselves one can very often fail completely in making a good pie.

Mrs. E.'s oyster pies were famous among our folks, but her mode of producing such faultless crust was unknown until little Ted one day confided to a neighbor that mama always baked a napkin in her pies, and put the oysters in afterward. And as it became an open secret, it will not matter if I tell you. After putting in your bottom crust, arrange a crumpled, clean napkin in a way to hold up the top crust, then lay on the top crust, and bake. Cook your seasoned oysters on top of the stove, adding butter and a very little corn-starch to thicken the gravy. When the crusts are done, remove the top one, take out the napkin, pour in the oysters, and lay on the top crust only a very short time before serving. You will find it free from any sogginess.

If the bottom crust of a mince pie is brushed over with the white of an egg, the juice will not soak through.

Mrs. F. puts a solid top upon her apple pies, giving it just a tiny pinch in the middle, for a little escape for the steam. She claims that in this way the steam cooks the apples.

The nicest baked apples I ever ate were cut in halves, pared and cored, put into a tin cake-pan, a lump of butter put in each one, with brown sugar and flour mixed and put over them, then hot water added to the pan. It is a much superior dish to the old way. If America's sons demand pie, it can always be presented in a desirable and healthful form. There is no reason why pie should not be a healthful article of diet as well as any form of hot breads.

It all depends upon the cook. There is so much good material absolutely wasted in the preparation for the table that the wilful waste of it appeals to every one who knows how to prepare food in a healthful, palatable manner.

We are getting to be a nation almost of package food—much of it about as nutritious as so much sawdust—and on account of it our children are growing up puny, white, weak little mortals. Instead of a good supper of hot bread and milk and a piece of juicy steak, they are fed a variety of useless dainties, in which there is no nutrition. An eminent oculist attributes the generality of weak eyes among the American children to too much farinaceous food, and I think many others will agree with him. W. D. M.

BIRTHDAY CAKES

Would you hear of a series of birthdays—three in a row? Shall I tell you of the birthday cakes? These are always carried in after the ice-cream is served, and all eyes are busy to see what decorates the top, to represent the years. From time to time various emblems have been used—candles, flags, penny dolls, tin soldiers, flowers, sticks of candy, and whatever the fancy dictated.

The first of our series was of alternate layers of gold and white, the dressing white, with nuts and raisins. Beautiful nasturtiums, with their dainty leaves, to the number of years—which we dare not tell—surrounded the cake upon its glass standard, which was placed within a wreath of the same flowers and their tendrils. In the midst of the flowers on the standard were—I almost told how many pennies the grandmother found; but she was generous enough to give one to each one present.

The next week came the mama's birthday. She had the same kind of cake, but an artistic older son had decorated the white icing with her initials, the date of her birth and the present date in different-colored candies.

The next week came the baby's birthday—the eight-year-old sunbeam. His cake was pure white, with caramel dressing. Around it were eight nasturtiums and leaves, arranged very gracefully by an auntie. Eight English walnuts and eight pink peppermints were on top, and on each corner of the cake were two pennies on tiny green nasturtium-leaves. Home-made candies crowned the feast, and the "birthday boy" said it was a happy day. Jessie Ewing Stokes.

THREE GOOD RECEIPTS

Stuffed Rolls.—Take small rolls, and rasp the crust evenly. Cut a round from the bottom of the rolls, and set these rounds aside. Then scrape out as much of the crumbs as possible, taking care not to penetrate the crust. Mince well-cooked chicken, tongue, beef or ham, and add to two tablespoonfuls of the meat one tablespoonful of white sauce. The sauce is made by mixing one tablespoonful of flour with one half cupful of cream, stirring in two ounces of butter. Add one level salt-spoonful of salt, a dash of pepper and a dust of nutmeg, and beat all together until smooth. When the sauce is cold, mix it with any small salad, finely chopped. Thoroughly mix and beat with the sauce, and fill the rolls. Take the rounds, place them at the ends of the rolls, pile on a pretty dish. They make a delicious adjunct for supper, tea or luncheon. If ham is used no salt is required in the sauce.

Veal Cake.—To make this, one pound of veal, one half pound of fat bacon, four hard-boiled eggs, the rind of a lemon, chopped parsley, seasoning, one gill of good stock that jellies when cold, and five sheets of leaf gelatin, are required. Then grease a small cake-tin, and decorate the bottom with some nicely cut rounds of hard-boiled eggs. Cut the veal and bacon into dice, and put them in alternate layers, sprinkling a little seasoning, minced parsley and lemon-peel between each layer. When full, pour in the stock, cover with greased paper, and bake for two and one half hours in a moderate oven. When cold, dissolve the gelatin in a little stock, and add it. Serve the next day.

Lemon Jelly.—Dissolve a generous half boxful of gelatin in one half pint of cold water. Then add one half pint of boiling water, the juice of three lemons, and sugar to taste. A. M. Marriott.

No. 2

FOR PNEUMONIA

If you are removed from a doctor, and your darling is attacked with the dreaded disease, pneumonia, immediately apply a poultice made of three cupfuls of raw, chopped onion, one cupful of powdered lobelia and one cupful of flaxseed-meal. When these ingredients are thoroughly mixed, wet the mixture with hot vinegar, and place it over a kettle of boiling water until it is as hot as the patient can bear. Make it into two poultices—one for the chest, the other for the back, of the sufferer. The flannel undershirt will hold these poultices in place. Now wind bandages carefully around the chest and back. Make these of an old sheet, two thicknesses, with a strip of newspaper folded between. Lap the bandages well, so that there will be no possibility of the air touching the chest.

Ella Bartlett Simmons.

A MORNING VISIT

"Bertha, don't you want to go to Mr. Anderson's with me, and visit with Mrs. Anderson, while I get a load of wood?" asked my husband one sunny winter morning.

Now, I enjoy nothing better than a visit with Mrs. Anderson. She is such a good housekeeper, and I always get so many ideas from her about doing housework. So I climbed into the high farm-wagon beside John.

The first thing I noticed, as I sat warming my toes in Mrs. Anderson's sitting-room, was her hardwood floors. They were so clean and polished-looking, and not a speck of dust to be seen anywhere. When I spoke of it, she said she swept the floor with a broom first, then tied over the broom a woolen cloth slightly dampened with kerosene, and with it went over the floor, into the corners and around the edges. She said it took but a few minutes of time, and her floor surely looked nice.

She was washing dishes, and I noticed her clean the greasy frying-pan with a crust of bread before washing it. While I was there Mr. Anderson came in.

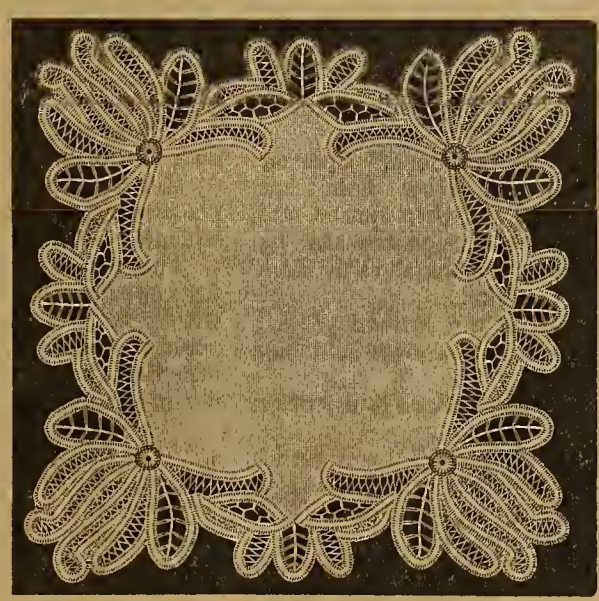
"Want anything from town, Maria?" he asked.

"Why, yes, Henry," Mrs. Anderson replied, and handed him a paper from a little note-book she had handy.

"You see," she said to me, "I jot in this book, as it comes to my mind, whatever I need from town. Then when Henry goes, I do not have to keep him waiting while I think."

Before she peeled the potatoes she picked up a whetstone and sharpened her knife. I thought of the dull knife with which I had been trying to get along, and resolved to invest in a whetstone.

Just before I left Mrs. Anderson began to churn. She used a dasher-churn, and instead of splashing her floor with the cream, as one is sure to do with a dasher-churn, she pinned a doubled newspaper around the churn, letting it extend a foot or two above the top. Mary Peterson.



No. 3

We illustrate in this issue three more pieces of our luncheon set in Battenberg, but cannot furnish patterns.

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In soft rough finish

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In smooth finish

Colors: Gray Mix, Brown Mix, Black Mix.
BOYS' HAT No. 3
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Colors: Black, Brown, Maple, Steel, Pearl.
BOYS' HAT No. 4
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Any one of these hats to be sent by mail to any address, upon receipt of 50 cents in cash, postal order or stamps. If the hat is not satisfactory, return it and money will be refunded. In ordering, give head size, and color and number desired.

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WOMAN'S HOME COMPANION, Springfield, Ohio

Josephine

Winning a Cold Sweetheart and a Sunny Home

By FRANK H. SWEET

CHAPTER I.

A PARTY OF TWO

FOR the first time during his stay at the hotel there was contentment—nay, triumph—in Spencer Grant's eyes. For had he not, after seven days of conciliation and manœuvering, separated Josephine Whilden from the meshes of her mother's surveillance? Thus far they had been together only in the presence of others, and even now his foreplanning was leaving her mother in the illusion that they were to be two of a party of twenty or more which was going up the lake in a sail-boat. He had begged of Josephine the acceptance of a line which he declared was peculiarly adapted to catching lake-fish, but he had so delayed the procuring of it that when they left the rotunda the rest of the party were upon the dock. Then he had engaged her attention with the merits of the line while going down the hotel avenue, and had adroitly drawn her into one of the winding paths, which, though the longest way around, was by no means the quickest mode of reaching their destination. When they did arrive within sight of the dock, the party had given them up and were already several rods from shore. The young man stopped suddenly while yet some of the foliage could be utilized as a screen. There was still a possibility that the boat would return.

"Of all things, Josephine!" he exclaimed. "The boat has left us! What shall we do?"

She looked at him curiously. "What would you advise?" she asked, with suspicious calmness.

"Why, getting another sail-boat and following them up," he answered promptly. "We could join them at the inlet. Or," as if an afterthought, "we might keep on by ourselves. A big crowd is always a nuisance. And—er," he continued, hesitating, and with certain eagerness in his voice which he could not wholly conceal, "if you would like, we could go and see the piece of land I'm thinking of buying—that I was telling you about. It's an awfully pretty place, and—and," lamely, "I would like you to see it."

She regarded him thoughtfully. It was a very strong, athletic figure she saw, with an ingenuous, boyish face, which was just now flushed and almost pleading in its expression. It was a face whose impulsiveness would lead into many mistakes, but whose strength would make of the mistakes a joke, and whose buoyancy and loyalty would make even the mistakes more a crown than a calamity. The girl's eyes were keen and analytical, and as she read the signs her face softened. Spencer Grant might not be a man destined to great things, but he was a man whom one could trust and—

She tapped her foot a little impatiently; then she smiled and hesitated, the incipient frown on her lips smoothing out into tranquillity. "Don't you think we'd better step a little further behind the bushes?" she suggested, demurely. "I saw some of the party looking this way just now. They might recognize us, and come back."

He colored, and was about to make some protest, but a look into her eyes reassured him. He laughed instead. "No; I fancy they are too far out by this time," he answered. "Still we will wait a few minutes longer to make sure. I—I hope you don't think—"

"Of course not," she interrupted. "You heard me say how tiresome it was at the inlet the other day, when I went up with that crowd, and you thought a nice little sailing-party of two would be pleasanter than trying to adapt myself to the whims of a dozen or twenty who never know what they want. It was awfully good and thoughtful of you," she continued, gratefully, "and I appreciate it. And, as you say, we can see the land."

He shot her a quick glance. "Thank you," he answered, simply, but his voice had suddenly taken on a new tone.

She stepped into the path. "I think they are far enough away now," she said hurriedly. "And really I'm afraid we ought not to have played them such a trick. What will mama say?"

He was walking close beside her now—closer than he had ever dared to before. His hand was even touching hers, as though by accident. "Oh, your mother won't know," he answered, gaily. "And anyway, it would not matter much if she did. Nothing could matter now."

She walked a little faster, biting her lip. At the dock she swept the water with a quick glance, then paused in dismay. "The sail-boats are all out," she cried, "and I hate those noisy launches. We ought to have engaged a boat in advance."

"We couldn't very well, under the circumstances," he said, smiling. "The fishing-party was not arranged until this morning, and then I—I—"

"Had to play privateer, and cut out one of the convoy—or captives, perhaps I would better say," she finished.

"Thank you again for your kindly forethought and skilful execution. It would have been a long, tedious day at the inlet, for I have no fishing instinct. Even a short trip in a launch will be preferable to all day up there in a sail-boat."

They had crossed the dock by this time, and were looking down at the only boat left—an old launch, which would have remained without passengers on a less fair day.

Josephine looked doubtfully from it to her companion. "What do you think, Spencer?" she asked.

"Tubbish, if you'll excuse the word," he answered, "but apparently it's our last chance." Turning to the boatman, he asked, "There is no hope for a sail-boat later, is there?"

"No, sir; they're mostly gone to the inlet for a day's fishin'," the man grumbled, discontentedly. "Queer how folks will jump into such zigzaggin' things when they's straight-movin' launches lyin' right 'long-side of 'em, an' jest as cheap. Now, for seven dollars—"

"Don't you suppose we'd better go, Josephine?" Spencer asked, a little anxiously. "The water is comparatively smooth to-day, and I don't believe there'll be the least danger, even in a tub like that. It's such a short way, and I do want you to see the land. And your mother talks of leaving before long, you know."

"Wait for us here," ordered Spencer. "We will be back in half an hour."

"Of course we'll go," Josephine replied quickly. "I'm curious to see the land, and wouldn't back out for a boat. But sailing would be so much nicer, and this launch is so—so—well, disreputable." She looked challengingly at the boatman. "Why don't you put some paint on it, or something, my good man? It's the worst-looking boat on the lake, and trade can't be had at such a place as this in that way."

The man did not answer for a moment. He was gazing warily at the few pedestrians on the long railroad-bridge which crossed the lake. Then he scanned the shore. Finally his eyes shifted to the girl. "Paint don't make a boat no faster, an' it costs money," he said, defensively; "an' I'm straight-ahead business. Now, for seven dollars—"

"Bring your boat closer to the dock," Spencer ordered. "There, that will do. Now hold her steady." He stepped on board, and then turned and assisted Josephine to the least objectionable seat he could find. The boatman swung the launch away from the dock, and headed her up the lake.

"You may take us across to the Barton place," Spencer said. "I will give one dollar over and one back, and no more."

The boatman scowled. "Seven dollars is my price for a day at the inlet, an'—"

"But we're not going to the inlet. You can get us to the Barton place in fifteen minutes, and we shall not want to stay there more than half an hour. Two dollars an hour for a launch is enough."

"I don't like piecemeal jobs, though—"

But the young man had turned back to his companion, and had apparently forgotten the boatman's existence. The man hesitated a moment; then, seeming to consider two dollars better than nothing, he settled down sullenly to his work. But Spencer heard him grumbling under his breath, "Seven dollars more'n I've got a ticket to"—the name he could not hear—"an' it's got to be raised 'fore dark."

As Spencer had said, the water was comparatively smooth, and the launch made little roll. In less than fifteen minutes she was at the Barton dock, and her passengers disembarking.

"Wait for us here," ordered Spencer, after he had assisted Josephine from the boat. "We will be back in half an hour."

"Pay me my money first," grumbled the man. "I don't trust nobody these days."

Spencer laughed, and handed him two dollars. "You're a regular churl," he said. "Now, don't forget. If we happen to be more than half an hour I will pay you for extra time."

The Barton place had been planned for a small winter hotel, but the hopes of the proprietor, as in many another similar case, had been forced to yield to the will of travel. Less than a mile away, across the lake, was one of the most popular resorts in the whole South, flocked to by thousands during the midwinter months. At first thought it would seem that a place of moderate cost within reasonable distance of the high-priced, fashionable center would be an unqualified success; but such it did not prove. It did not matter that the climate was the same, that there was tropical growth and the same beautiful lake with its teeming fish, and that even the famed resort itself was less than a half-hour's travel away. People who came here were attracted by the fame of the resort, or came through the remembrance of former visits, and would not be satisfied with part of a bite. They insisted on paying more and having it all, and then going away. A place that was not of the easiest accessibility would not do for them. So after a year of hope, followed by one of consternation, the owner of the Barton place found, as many a hotel-keeper had found before him, that ten miles of isolation was preferable in his business to ten rods beyond the suburbs of custom. The house was taken to pieces, and removed to the village, where it was converted into tenements, and the land put into the hands of an agent.

There was a gradual rise from the lake to the spot where the house had stood, and as they went up the slope Spencer looked about him with a pleased sense of coming proprietorship.

"It is a beautiful site for a home," he said, without any attempt to hide his enthusiasm. "The grade and elevation are just right for looks and drainage, and there is a fine lot of shrubbery and trees that have a good start. They will take away the effect of newness. I will build"—he came near saying "we," but caught himself in time—"a low, broad house, covering a good deal of ground, with immense verandas. That is the kind for a warm climate. I have an especial weakness for hammocks and veranda-chairs and that sort of thing. Then think what a fine view there will be of the big hotels and cottages across the lake, especially when they are lighted up at night—a better view than we can make for them, I am afraid." He gave a low, pleased laugh, then noticed a peculiar look on her face, and stopped suddenly. What had he done—or said? Oh, yes; slipped a pronoun. But what of it? It didn't matter now. "You see," he went on, composedly, "we—"

But she was looking quietly into his eyes, and though the smile was still on her lips, something about it again brought him to a stop.

[TO BE CONTINUED]

THE BACK DOOR OF HER HEART

BY MAY C. RINGWALT

There was a suspicious newness about them both—a newness in her blue, tailor-made gown and stylish brown turban, with its mottled breast nestling against her fluffy light hair, and in his gray traveling-suit and jaunty red necktie; a newness in her shining valise and in his resplendent dress-suit case; and, above all, a newness in her happy smiles and in his bashful glances. And when he tossed his overcoat on the opposite seat of the section, and some very new rice suddenly flaked the aisle of the car, there was an audible titter in the air of the Pullman.

The man turned a burning face to the woman's crimson one, and, hanging their heads, they abjectly giggled.

"I suppose, Polly," he said, "that everybody has to be a fool once in a lifetime, and it's our turn now."

Her downcast blue eyes demurely peeped up into his adoring brown ones. "Don't you think, Dan," she whispered, "that being fools is pleasant?"

The next evening the bride excitedly fastened the fur cape that her husband's clumsy fingers had awkwardly placed on her shoulders, and impatiently watched the porter as he stood, valise and dress-suit case in hand, waiting for the train to stop at a station out in the plains.

"It looks more cheerful in the daytime," said Dan, encouragingly, as the train left them shivering on a forlorn platform.

After the bright sleeper, night surrounded them like the walls of a tunnel, with the tiny window of the station for a signal-light. As they groped their way along, the station door opened, and an old man hobbled out on a crutch.

"Dan Norris for a fact!" he cried, gleefully waving a lantern. "Dan and the little gal he's married! According to my chart, I was to be on the wharf when the bride docked, but that blooming fire went plumb out, and there I was piling coal into the durned stove like a stoker when she floated into port."

"Never mind, Cap," said Dan, good-naturedly; "we'll take the will for the deed this time."

"Cap's a character!" exclaimed Dan ten minutes later, when he slammed the rickety door of the loose-jointed hack, and contentedly sank back on the seat.

"It seems to me," said Polly, with great dignity, "that he was familiar—calling you by your first name, and all."

"Oh," replied Dan, "you mustn't mind that. I'm Dan Norris to everybody here."

The young bride sat erect. "I've no intention of being 'Polly Norris,' and they may as well understand it!"

Dan smiled. "You'll change your mind. Our little farms cuddle so together, we've grown up like one family. Had I been running a tremendous ranch further West, I'd hardly have dared to bring you from the city, Polly, but I knew that they wouldn't let you be lonesome here."

"Look, Polly!" cried Dan, after a tender silence. "We're passing Judge Hittell's place. The house cost ten thousand dollars. And over there is the steeple of the church."

Later they rattled over several blocks of cobblestones, then, turning from the dimly lighted streets, the creaking hack lurched into inky darkness.

"We're beyond the city limits now," explained Dan. "The road was muddy before it froze, so there are ruts."

Polly clasped her hands. "Dan, what is happening?" she gasped. The vehicle seemed to stand suddenly on its head, while water splashed against a window.

"We're just fording the river," answered Dan, complacently. "There, we're up the bank all right. It's nothing more than wading a creek now, but in the spring you have to step lively! Cattle are drowned every year. We'll have a bridge some fine day. See the light over there, Polly? That's the Blake farm. Mrs. Blake will be like a mother to you."

"One more turn," cried Dan, "and we'll be in sight of home." He waited, his face flattened against the carriage window; then he uttered an exclamation of delighted surprise. "Polly! It's all lit up—they must be giving us a house-warming!"

"To-night, Dan? Must I meet them to-night?" There was a catch in her voice, and her head drooped against his shoulder. "Dan, everything is so new and strange, and I'm so—tired."

It had been a superstition of Polly's childhood that whenever she was punished on Sunday "a naughty, bad debble" held sway over the rest of her week, and the torment of the "public" home-coming that night seemed to rule all the dreary winter days that followed.

Until now a little circle of congenial friends had shut in her experience from all loneliness, but hers had been the reserved, exclusive life of a large city, where families may live for years in the same block without a speaking acquaintance. Those whom she loved had approached her by a long flight of social steps, and conventional ringing for admittance to her intimacy, and she secretly resented as an impertinence the attempt of these country people to walk unceremoniously in at the back door of her heart. Her present neighbors came to see her in the mornings, when her nervous hands were busy over unaccustomed household tasks, and watched, suggested and advised until she could have cheerfully committed murder. They dropped in, uninvited guests at dinner, when the baked custard was watery or the mayonnaise curdled. They brought their babies to spend the afternoons, and delivered orations on teething and colic.

Had she been a woman who cried out at the smart of each heartburning, her misery would have worn less upon her; but she had the proud, silent nature that suffers and smiles. But sometimes a placid mountain lake hides a volcano, and when the day of reckoning comes, and the sealed lips of the waters open, the earth is rent with words of fire.

The long winter slowly slipped away in melting snowdrifts, and spring came reluctantly in torrents of rain.

The kitchen fire had smoked and smoldered that morning, and Polly was late with breakfast. With eyes on the clock, Dan had gulped his coffee, and got up from the table without finishing his eggs and bacon.

"Confound it!" he exclaimed, as he hastened into his mackintosh, "this button's never been sewed on!"

Polly dropped the piece of toast that she was eating, and ran to her work-box. Threading a needle as she crossed the room, she hurried to the rescue. "I won't be a second, Dan. You needn't even take it off. It's too bad! I forgot about the button, but I have so many interruptions." Her hand sewed with nervous haste. "Oh," she cried, with a hysterical little laugh, as she cut the thread, "I've sewed it through your overcoat!"

"I don't see anything amusing about it!" said Dan, irritably. "Next time I'll sew it on myself!"

There was a light in her eyes, and a peculiar smile on her tightly pressed lips, but she finished her task, and went back to the table without speaking.

"Oh, Polly," said Dan, pleasantly, as he stamped on his rubber boots, "I almost forgot to tell you. Tom Blake said last night that he's going to be away on business for a couple of weeks, and I invited his mother to stay with us." He smilingly glanced at his wife. A weariness on her white face reproachfully recalled his impatient words. "It will be nice for you to have her to help you with your work," he said, caressingly. "Your mending and that sort of thing," he added, innocently.

The white face flushed crimson. "She sha'n't come! Do you understand, Dan? I won't have her!"

"What do you mean?" he asked, sternly.

Polly got up from the table, and with shaking hands began to gather together the clattering dishes. "I mean," said she, in a low, tense voice, "that I hate Mrs. Blake. I mean that I wish that I'd never seen her, nor any one else in this miserable place!" She turned, and measured him with a glance of rage. "That I wish that I'd never seen you!"

He stood stunned, blankly staring into space.

"I thought that you were in a hurry," she taunted.

He went out, and slammed the door.

She sank down in her chair, the little pile of dishes still held in her hands. The rain lashed the house—or was it a demon beating her heart? She sprang up, and in a frenzy hurried through her household tasks. Then she wearily dragged herself up the stairs, flung herself upon the bed, and instantly fell into a deep sleep.

She was half awakened by a vague, far-away noise which, as her mind stumbled on into complete consciousness, grew into an imperative knocking at the kitchen door. Involuntarily she sprang up—then quietly laid down. Dan had gone to town until evening, she would have this one day to herself.

But she could not sleep again. The wild sweep of the storm was spent, but the slow, perpetual dropping of the rain upon the roof tortured her. Her strained nerves fancied strange sounds—the raising of a window, footsteps on the side porch, a murmur of voices. Distracted, she rose, and reluctantly started down the front stairs.

Toward the end of the flight she paused, proudly drawing herself up. In the lower hall stood Mrs. Blake.

"We rang, and we knocked," said the intruder, in a low voice. "I'm glad that you weren't out, after all."

"May I inquire how you got in?" There was an indignant flash in Polly's eyes.

"We forced open the dining-room window, and unlocked the side door," she explained hastily. "My dear child—" Her voice broke, and she silently held out her arms.

Dazed, Polly looked down at them, and vaguely wondered why they trembled.

"My dear child," repeated Mrs. Blake, "you must be brave. We think that it was an accident at the ford. They found Dan two miles further down the river—it must have been at least an hour after it happened."

With a grip of pain, the older woman's shoulders were clutched by the fierce young hands. "Do you mean," asked Polly, in a strained voice, "that my husband is dead?"

"Thank God, no—he's still alive."

With a cry of joy Polly darted forward.

"Wait," said Mrs. Blake. "You must not go to him so. He is terribly injured. You must control yourself first."

A sense of reserved power in her calmness instantly soothed Polly. "I'll do whatever you say," she answered.

"Go in softly, and look at him—it will help you," said Mrs. Blake, tenderly, "then come up-stairs to me. I'm going to get his room ready."

In the days that followed, when to Polly the whole universe resolved itself into one human life and one human love, it was this same quiet strength that kept her from despair. The older woman's tried wisdom ruled over the young wife's ignorance and inexperience with the sweet authority of a mother, and while her skill performed all important duties in the sick-room, her gracious task constantly invented small labors of love for Polly's empty hands.

But Mrs. Blake was not the only one to minister to Polly's needs. From every direction came friends with outstretched hands and loving offers to serve her. The men attended to the business of the farm, and took turns in sitting up at night with Dan. The women quietly cared for the house and cooked the meals. And all brought with them cherished stories of Dan's past kindness to themselves.

"You see, Polly," said Mrs. Blake, her eyes filling with tears, "he's such a dear, noble fellow that there's not one of us that's not in his debt, and this is our first opportunity to show how much we've always appreciated the beautiful things that he's done for others." She wiped her eyes, and faintly smiled. "We made an attempt to let him know by trying to be good to his dear wife, but she was rather shy."

Filled with remorse, Polly slipped away, and softly entered the sick-room. With stinging thoughts of the past few months, she hung over the bed, looking down at the weak, still body, with its feeble, fluttering breath. Suddenly Dan seemed no longer to lie there, but to stand before her—the white, dying face blindly staring into space, and she heard an angry woman's voice saying, "I wish that I had never seen you!" With a stifled sob she ran from the room.

As she crept down the stairs a hum of voices reached her from the parlor. A terrible conviction seized her. The doctors had given up hope, and they were planning to keep it from her until the last. She would not be tricked like a child. She stealthily drew near the parlor door, and hid in the shadow of the heavy portière.

It was the voice of the old station-master that she heard. "Boys," he was saying, enthusiastically, "it's not a question whether we can afford a thousand dollars to send for a physician from the city, but whether this here ship can afford to lose a man like Dan Norris from the bridge. When I was in that surrey wreck nine years ago, Dan Norris towed me to the city hospital in a special. He never considered the cost of the cargo that he ordered for me there until the bills of lading came in—then he mortgaged his farm, and paid everything. I've saved up a couple of hundred to bury me—calculated to have the kerridge and that sort of thing—but you can put me in a sea-chest, and send me afloat in the potter's field. Dan shall have every blooming cent, and if there're not four others to pledge as much, I hope this whole durned town will strike a rock, and founder!"

The portière swayed, and the listening woman tottered through the hall to the porch. Emotion choked her. To breathe, she must be outdoors.

It was a night of stars, and they sent her the sweet message of the soft, fragrant air. In some strange, subtle way she was comforted. With a new serenity of soul she went into the house again.

The next afternoon Doctor Thornton, the celebrated city physician, arrived. He and the two doctors from town who had devotedly attended Dan went into the sick-room alone, and closed the door. In a chamber across the hall sat Mrs. Blake and Polly—waiting.

Half an hour passed in an awful silence; then to the straining ears of the women there was the sound of the cautious opening of a door.

Polly tried to rise, but a sudden weight about her skirts bore her down. She tried to speak, but could only move her lips; no words would come. Her eyes were speech enough.

Mrs. Blake answered the agony of their pleading. "I'll find out, and tell you," she whispered.

The minute that she was gone was endless, measured by the intense longing of Polly's heart. But when she returned, the light shining on her face flashed a joyous message.

"Polly!" she cried. "Polly! Doctor Thornton says he knows that he can pull him through!"

With a cry of thanksgiving Polly sprang into Mrs. Blake's arms. "Oh," she sobbed, "I owe it all to you—to you and the others who have been so good to him! I love you—I love you all so much!"

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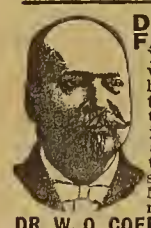

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AN OBJECT-LESSON

In a Restaurant

A physician puts the query: "Have you never noticed in any large restaurant at lunch or dinner time the large number of hearty, vigorous old men at the tables; men whose ages run from 60 to 80 years; many of them bald, and all perhaps gray, but none of them feeble or senile?"

Perhaps the spectacle is so common as to have escaped your observation or comment, but nevertheless it is an object-lesson which means something.

If you will notice what these hearty old fellows are eating, you will observe that they are not munching bran crackers nor gingerly picking their way through a menu-card of new-fangled health foods; on the contrary, they seem to prefer a juicy roast of beef, a properly turned loin of mutton, and even the deadly broiled lobster is not altogether ignored.

The point of all this is that a vigorous old age depends upon good digestion and plenty of wholesome food, and not upon dieting and an endeavor to live upon bran crackers.

There is a certain class of food-cranks who seem to believe that meat, coffee and many other good things are rank poisons, but these cadaverous, sickly looking individuals are a walking condemnation of their own theories.

The matter in a nutshell is that if the stomach secretes the natural digestive juices in sufficient quantity, any wholesome food will be promptly digested; if the stomach does not do so, and certain foods cause distress, one or two of Stuart's Dyspepsia Tablets after each meal will remove all difficulty, because they supply just what every weak stomach lacks—pepsin, hydrochloric acid, diastase and nux.

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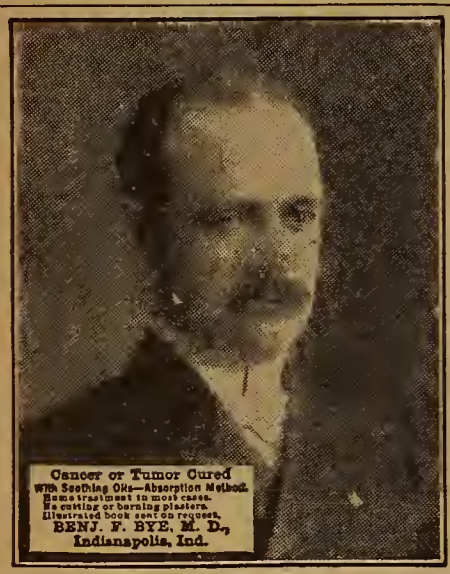

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How to Dress

WINTER MILLINERY

THE beavers, which drape as gracefully as the softest velvets, are the smartest materials for street-hats. Panne and miroir velvet are also fashioned into hats of rare beauty. Hats made of taffeta, either draped or formed into petals which overlap each other, continue in favor. Hats of fur are even more fashionable than formerly. A beautiful hat was in the popular low, flat shape, with the crown and upper brim made entirely of squirrel, and the facing of white chiffon laid in tiny plaits. Two white plumes provided the only decoration. Hats of sealskin are something of a novelty, but are extremely smart. The heavy Spanish and Russian turbans suggest a pleasing use for this fur, as well as for Persian and baby lamb. Sable, mink, chinchilla and ermine are other furs employed upon stylish head-gear. The picture-hat is much seen this season in velvet, beaver and lace. Hats made of chamois are charming and novel, and low, flat sailors made in winter materials are popular.—The Delineator.

FASHION HINTS FOR WINTER

Velvet, velveteen and corduroy costumes are among the season's smartest modes.

An excellent choice for street attire is a fabric showing a shaggy, hairy texture, such as zibeline or camel's-hair.

The sloping or drop-shoulder effect is seen in many of the newest bodices, and the duchess closing is a distinctive feature of the newest shirt-waists.

At last a change has come in skirts, which for the street are noticeably shorter; there is a marked tendency to give up the furbelows and ruffles, and adopt the severer tailor-made models. The hip-yoke is a feature of the majority of the new skirts.

The boa is a picturesque stole, and cape-collars of every shape and depth are prominent among the season's fashions.

Among the innovations in materials are the metallic tints and effects in heavy, rough cloths, zibelines, vigognes, homespuns, etc., and "Coronation cloth," a heavy winter goods suitable for skating, golf, etc.

Long-nap plush is being revived this winter, and pompadour silks as a foundation for net, chiffon and other sheer textiles are established in high favor.

Among the smartest accessories of the toilet are a tall stock collar, cuffs and belt-girdle, preferably of a contrasting material.

Embroidery is very prominent in all the fashions.

One of the latest novelties employed in trimming for tailor-made gowns is suede undressed kidskin.

A unique trimming is the new cloth ribbon embroidered in Oriental colors.—The Delineator.

GIRLS' COAT

GIRLS' COAT

Long coats make the most acceptable of all wraps for little girls. The very stylish model illustrated is cut on the latest lines, and can be made with either the strap or rolling collar. The double capes are a feature, and exceedingly becoming to girlish figures. As shown, the material is dark blue pebble cheviot, with capes, collar and cuffs of blue velvet, and trimming of black-and-white braid. All materials used for coats are appropriate, however.

MISSES' BLOUSE-JACKET SUIT

Checks and plaids are much in vogue, and are especially smart for young girls' wear. The very stylish costume illustrated shows dark green zibeline in a dimly defined check, the lines of white and black, combined with broadcloth in plain green, and makes an admirable model for general street-wear. The blouse shows two slot-seams at the front, and two at the back; the skirt has one at each seam. Those on the jacket are stitched for its entire length, but those on the shirt are left free at flounce-depth, to provide the fashionable flare.

EMBROIDERED CASHMERE

Cashmere is never handsomer than in tan and biscuit shades. The very smart afternoon gown illustrated shows a soft shade of tan embroidered with wood-browns and trimmed with bands of brown silk edged with velvet. The waist makes one of the latest novelties, and includes a stock in clerical style, as well as strap trimming and the fashionable princesse closing. The skirt is cut in seven gores, with a habit back, and can be buttoned down the back or seamed and closed invisibly, as preferred.

A HANDSOME AFTERNOON GOWN

Afternoon gowns of wool and silk and wool fabrics are much worn, and are exceedingly handsome. The smart and attractive model illustrated is made of canvas in a beautiful shade of réséda, and is trimmed with black silk appliqué and combined with spotted net in écru. The waist is novel and chic, and includes the long, drooping shoulders with one of the newest sleeves.

PARIS AND NEW YORK FASHIONS

Fans are among the most attractive gifts this season, because fashion has adopted the fan for many purposes besides those for which it was intended. The metropolis has, in fact, taken up many of the pretty styles common to the South, waiting, however, for them to get here via Paris, although the admiration which they excited in Southern lands is certainly the reason for much of their popularity. The sign-language of the fan is fascinating in the hands of Southern women, Parisiennes and the señoritas of Spain and Spanish countries.

For dress occasions lace fans, usually with richly carved and chased sticks of mother-of-pearl or tortoise-shell, are as stylish as they are expensive. Therefore, even more popular are the gauze fans of black or white, with the same sort of sticks, or carved and fancy wood sticks, or carved and plain ivory. The latter are much in vogue this season. These gauze fans are brightly spangled over with steel where the fan is black, or silver where it is white. Since the spangling can be done at home, a handsome fan can be made out of a plain one, and enables one to give a present that could not otherwise be indulged in. The fans have butterflies of some sort outlined or spangled upon them. An exquisite example had one large lace butterfly covering the whole of a black fan, with charming effect.—Marie Montaigne, in New Orleans Picayune.

AFTERNOON GOWN

MISSES' BLOUSE-JACKET SUIT

EMBROIDERED CASHMERE

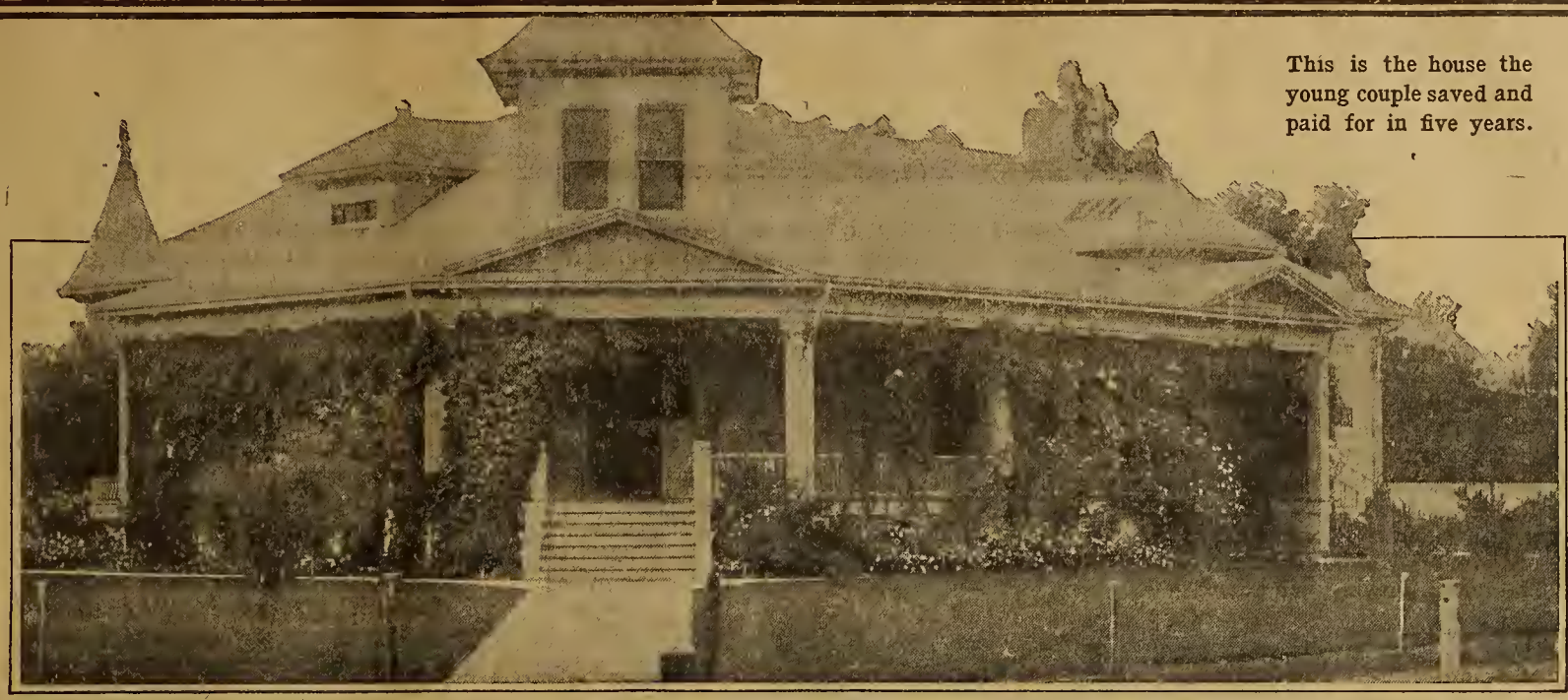
These patterns sent from this office for ten cents each.

AFTERNOON GOWN WITH BOLERO.—Waist pattern No. 4310. In sizes 32, 34 and 36 inches bust measures. Seven-gored skirt with fan plaits No. 4221. In sizes 22, 24, 26, 28 and 30 inches waist measures.

GIRLS' COAT.—No. 4280. In sizes for girls 6, 8, 10, 12 and 14 years of age.

MISSES' BLOUSE-JACKET SUIT.—Jacket No. 4220. In sizes for misses 12, 14 and 16 years of age. Slot-seam skirt No. 4303. In sizes for misses 12, 14 and 16 years of age.

EMBROIDERED CASHMERE.—Blouse No. 4301. In sizes 32, 34, 36, 38 and 40 inches bust measures. Skirt No. 4223. In sizes 22, 24, 26, 28 and 30 inches waist measures.



This is the house the young couple saved and paid for in five years.

A Young Couple Were Married 5 Years Ago

He had a moderate salary. They started simply and saved. But they didn't skimp. They gave little dinners and heard the best lectures. In five years they had saved enough to pay for the house at the head of this page.

Another Young Couple Were Married, Too

They put by $7 a week, and the house at the bottom of this page is now theirs,—entirely paid for. A third young couple's income was $16 per week. They saved $8 of it, and bought and paid for the house at the bottom of this page.

How these and 97 others did it, step by step, dollar by dollar, is all told in the great series, "*How We Saved For a Home,*"—100 articles by 100 people who saved for and now own their own homes on an

Average Salary of $15 a Week: None Higher Than $30

This great series will run for an entire year in

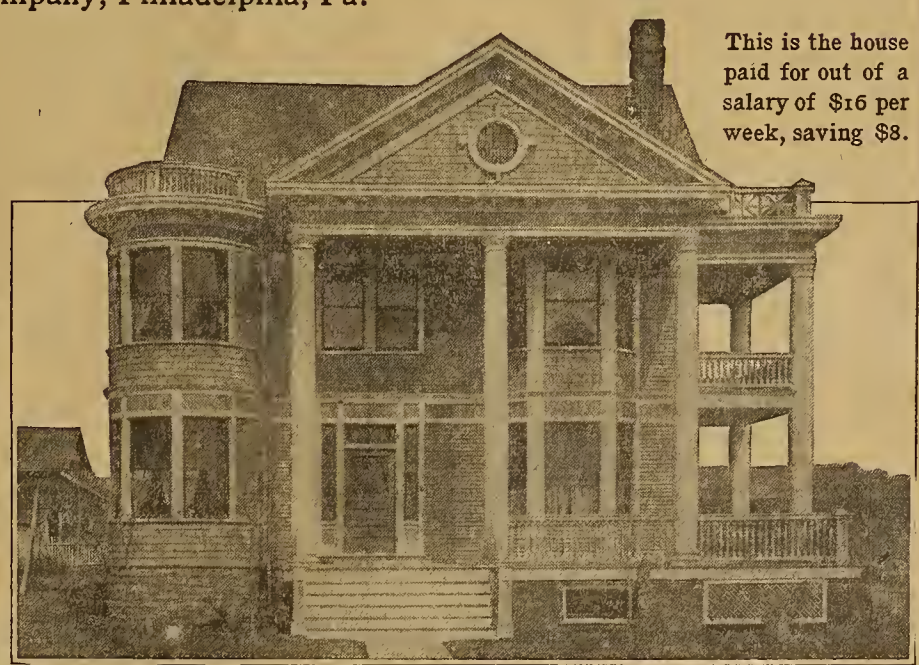
The Ladies' Home Journal

For ONE DOLLAR, for a year's subscription, you get the whole series.

The Curtis Publishing Company, Philadelphia, Pa.

This is the house saved for on $7 a week and now all paid for.

This is the house paid for out of a salary of $16 per week, saving $8.



The Young People

A WONDERFUL COW

A LITTLE four-year-old was taken on a visit to grandmama in the country. There, for the first time, he had a near view of a cow. He would stand and look on while the man milked, and ask all manner of questions. In this way he learned that the long, crooked branches on the cow's head were called horns. Now, the little fellow knew of only one kind of horn, and a few days after obtaining this information, hearing a strange, bellowing noise in the yard, he ran out to ascertain its cause. In a few minutes he returned, with wonder and delight depicted on his countenance, exclaiming, "Mama! mama! oh, do come out here! The cow's blowing her horns!"—Watchman.

AFTER SCHOOL

BY R. B. BUCKHAM

What a round of fun the average boy manages to crowd into the brief space of time which intervenes between the closing of school and the ringing of the supper-bell! Enough to make us staid older ones think a bit, to say the least. First there is the blood-stirring race across the school-yard, then the game of marbles on the hard, beaten sidewalk beyond, or the top-spinning on the pavement, followed by the walk home, and the stroll down the lane after flowers or nuts, the romp in the barn, and the game of base-ball on the common, or something else as active and enjoyable, all going to make up the school-boy's round of healthful and refreshing recreation.

What fun it all is, and what funny things are all the time happening, too! In a group of boys with whom I am familiar, one, Tom Mears, is head and shoulders over all the others. He is a fine, strapping specimen of a young fellow, who you would certainly say could almost equal a full-grown man in any variety of outdoor sports. Yet, as a matter of fact, when the boys had a great race one night after school, to settle once and for all who of their number was the fleetest, lo and behold! Ralph Adney, the smallest and shortest of them all, came out ahead by a long lead, and Tom Mears brought up the rear.

Then again, when this jolly company were crossing a pasture on their way to the woods after May-flowers one Saturday afternoon, and when neighbor Atwood's cow came running after them, doubtless in the hope of receiving a little grain for her pains, Allie Crane, who has always boasted that he is to be a soldier—and a very gallant one, too—was so frightened that he took to crying for help at the top of his lungs, until Willie Ames, usually the most timid of the band, succeeded in frightening her away with a stick. Willie was ever after that a hero in the eyes of his companions, more than one of whom, if the truth be told, was not a little alarmed at the animal's sudden advance upon them. This, too, they learned from the occurrence—that one's personal prowess is not always to be estimated as easily as might be imagined.

So all sorts of incidents, thrilling and ludicrous and enjoyable, are all the time happening with these particular boys whom I have in mind, in their hours out of school. On one occasion two of them participated in an adventure which came very near ending disastrously. Fred Wood and Henry Mears, Tom's younger brother, were out on an expedition after lady's-slippers. Back of the Atwood pasture, on the further side of the woods, there is a dim and dismal swamp, which is a famous place for these wonderful flowers. Portions of it are very treacherous, being boggy and full of spring-holes, and the boys had often been warned to avoid its vicinity. The warning, however, had been unheeded or forgotten, and into one of these hidden holes Henry in some manner managed to stumble, and almost before he realized what had happened, he was up to his waist in the soft mire, and sinking rapidly.

Ah, what a moment of horror that which followed is to this day with the two boys! Immediately Fred rushed to his companion's rescue, and reaching out to him with one hand, seized firm hold of a stout oak sapling with the other. Then followed a terrible tussle with the yielding quagmire. For a time it looked as though both would certainly be drawn into the soft mire together, but at last Fred came off victorious, and managed to draw his associate out onto firm ground again, but just how he was scarcely able to afterward explain.

Now, here is the strange part of it all. It seems to be a fact that it is during our times of leisure, and not of toil, that we are most likely to fall into danger. When a boy is hard at work at his lessons or other tasks he is pretty sure to be well enough out of harm's way. But let him have a care what he does in his time of idleness. It is then that he is most open to temptation. Beware of anything unkind or unmanly or ignoble, or forbidden by parent or friend, and especially if it be hidden in the guise of a bit of fun.

PATIENCE

"Hain't yer had a bite yet, Hiram?"

"Not yet, Genevieve. Ye see, they's all young fishes in this here pond, an' I'm waitin' for der teeth ter grow."

TRICKS WITH HANDKERCHIEFS

THE VANISHING HANDKERCHIEF.—This is not a trick in itself, but merely an interlude. To the center of a small handkerchief securely sew a piece of fine fish-line. Pass this up your right coat-sleeve, cross the back, and bring it down through the left sleeve and tie the end to your left wrist. The precise length of the string is regulated as follows: The arms being straightened and fully extended, the cord should be drawn tight, and the handkerchief completely hidden in the sleeve. It will be readily understood that if you hold the arms slightly bent and close to the body the string becomes loose and allows the handkerchief to be drawn out of the sleeve. By extending the arms with a forward movement the cord is drawn tight, and the handkerchief flies up the sleeve with lightning rapidity.

When about to produce the trick, have the handkerchief concealed in the sleeve. You place both hands behind your back, as though to take the handkerchief out of a rear pocket, but really in order, with the aid of the left hand, to pull it out of the sleeve. When you bring the arms forward the handkerchief is held crumpled together in the right hand. You wipe your forehead, and gently fan yourself with the handkerchief; then, clapping your hands with the handkerchief between them, it instantly vanishes. As you clap the hands you extend and elongate the arms, and these combined moves completely disguise the "modus operandi." The experiment may be repeated as many times as you wish. You have only to put the hands behind you, ostensibly to take the handkerchief out of your pocket. Tell the audience that your handkerchiefs are like those of the wizards of old, that always returned invisibly to the pocket. This is an extremely simple interlude, and is very effective.

THE SPINNING HANDKERCHIEF.—I never knew this trick to fail to excite admiration, and though it appears marvelous, it is in itself most simple in the method of working. You bring forward a short stick and a large handkerchief, and throwing the handkerchief into the air, catch it on the end of the stick and spin it rapidly around in all directions, and finally throw it off the end of the stick and catch it as it is falling.

The secret of this trick is that at the end of the stick a needle is inserted, and the point allowed to project about half an inch beyond the end of the stick. Therefore, the handkerchief when thrown into the air is caught upon the point of the projecting needle, which, being very fine, is not seen by the audience; but it appears to them as if the handkerchief is caught on the end of the stick. This illusion can be worked to advantage either as an opening trick or as the conclusion to some more elaborate trick in which the handkerchief has played the important part. It makes an effective finish, as a borrowed handkerchief can be sent spinning among the audience.

TO STRETCH A HANDKERCHIEF.—This is an amusing illusion of the impromptu order. Borrow a handkerchief (a silk one, if possible), and observe that it is not long enough for your purpose. Ask the owner's permission to stretch it, which will cause some laughter at the owner's expense, as the handkerchief seems to grow twice its length under the manipulation of the performer's hands. This result is accomplished by taking the handkerchief by one corner in each hand, and while twisting it up gathering an inch or two in each palm. Stretch the arms wide apart, so that the handkerchief lies across the chest, without allowing any of the gathered-up portions of it to escape. Now give the handkerchief a turn or two in the air, and again stretch it across the chest, this time allowing about half an inch to escape out of the hands. Twist again and stretch, allowing a little more to escape, and repeat the operation until the extreme ends are reached. To the audience the length of the handkerchief seems to have increased forty per cent. This illusion rests on a slight foundation. Few persons are aware how long a comparatively small handkerchief is diagonally. If the reader is acquainted with the forty-seventh problem of Euclid, he will be able to figure this out. A handkerchief, by way of illustration, twenty-four inches square measures when merely laid flat two feet ten inches across its diagonal, and this length by stretching may be increased to over three feet. In performing this trick you should make a pretense of great exertion, as if the handkerchief were really stretched by strong muscular effort. One more word of advice. However much of the slack of the handkerchief be gathered up in the hands, the extreme corners should always remain visible, this being accepted by the uninitiated as proof that the whole of the handkerchief is seen. This may seem a little point, but it is attention to the little things that makes the successful magician. Nothing but perfection is admissible when it comes to the working of illusions, especially those involving sleight of hand, and for this reason the study of the art has a wholesome effect on the mind.

THE MAGICAL KNOT.—This title is a trifle misleading, as the experiment is more in the nature of a puzzle than a trick. The trick, or problem, is to take a handkerchief by the opposite ends, one in each hand, and without letting go of either end, tie a knot in the center. There is no trickery in this, as you may suppose; but, however impossible it may seem, it is easily accomplished—if you know how. I have seen wise men ponder an hour or more over it.

The secret lies in the way in which the handkerchief is seized. You must first lay the handkerchief, twisted ropewise, on the table. Then fold the arms so that the hands cross, the right hand coming out above, and the left hand below. Retaining this position, you must so bend the body as to be able to catch hold of the two ends of the handkerchief, one with each hand. If the arms be drawn apart, a knot will form in the handkerchief.—J. N. Williams, in American Boy.

A beetle climbed a mullen-stalk
To see what he could see.
"The sun is bright, but edged with white;
It's going to snow," said he.

And then the beetle scrambled down
As fast as he could go,
And dug a hole beside a mole,
To shield him from the snow.

And then together, side by side,
All winter, snug and warm,
The two did dwell, alive and well,
Protected from the storm.

The Family Physician

By ROBERT B. HOUSE, M.D.

AN EFFECTIVE NON-MEDICINAL HYPNOTIC

PROPERLY applied, the hot spinal fomentation is, in our judgment, the most universally effective. This is emphatically true in neurasthenia and the insomnia due to mental overwork, anxiety, etc.

For the spinal or any plain fomentation two pieces of woolen cloth or flannel one yard square should be used. One piece should be dipped in boiling water, wrung as dry as possible, folded until one third of a yard wide, then laid in the center of the dry piece, the latter being folded over the wet cloth so as to leave two layers of dry cloth on one side and one layer on the other. Apply the latter side snugly to the spinal column, and have the patient assume a thoroughly relaxed position for sleep. Another set of cloths should be ready, so as to replace the first fomentation should it prove ineffective. After the first fomentation the cloth may be reheated in a steamer.

I have had most gratifying results with this measure, not only as a hypnotic, but also in general or multiple neuralgia of the trunk or lower extremities, and always applied to the spine.

It is surprising how effectively this spinal fomentation acts in pain over any spinal nerve.

FEEDING BABY DURING THE FIRST FEW DAYS

After the baby has been washed and dressed, and the mother has been made comfortable, the baby can be put to the breast. Although there will not be any milk, but only a watery substance, provided as a medicine for the baby's bowels, the application of the baby to the breast will be a help to draw out the nipples and prepare the way for the milk that will fill the breasts in a few days. The suckling aids the mother's convalescence, as it causes the womb to contract, thus preventing disease. When the baby has drawn what it can from the breasts it is to be placed in an easy position on its right side, so it can sleep just as long as it will. It must not be awakened. Mother and child can rest together. If the baby awakens crying, it can be put to the breast, even though there be nothing there, or it can be carried around the room until it is quiet, rather than to feed it with some indigestible compound. To the moment of birth the baby was nourished by the mother's blood, and therefore does not need food the minute it opens its mouth.

For the first few days the baby will lose in weight, no matter what it is fed, and mothers should understand this, so as to prevent ignorant nurses from imposing on them by saying that the baby is growing thin and must be fed. If the baby be well it will sleep most of the time for the first day or two. Begin early the regular nursing that is to make both child and mother comfortable. For the first week the baby can be nursed, if awake, once in one and one half or two hours. At night arrange to have the last nursing about nine o'clock, and, except in rare instances, the baby will not require the breast again until morning. If the child cries, a little water is often sufficient, for a cry is not always a sign of hunger, but more often of repletion and indigestion. Once habituated, the baby will sleep for six or eight hours. The mother rests, also, and is in better condition, physically and mentally, to perform her maternal duties.—Babyhood.

The Family Lawyer

By JUDGE WM. M. ROCKEL

Legal inquiries of general interest from our regular subscribers will be answered in this department free of charge. Querists desiring an immediate answer by mail should remit one dollar, addressed "Law Department," this office.

PATENTS.—H. S. W., Kansas. In reference to patents, etc., I would say that you had better make inquiries of the Patent Office at Washington, D. C., or some reliable patent attorney.

HOMESTEAD EXEMPTION.—D. S. F., North Carolina, asks: "If under the laws of North Carolina a judgment against the owner of a homestead is barred by the statute of limitation." The statute of limitation does not run against any judgment against the owner of a homestead or homestead interest during the existence of such homestead or homestead interest, whether the same has been allowed, or shall hereafter be allowed, assigned or set apart, under any execution or otherwise.

LIABILITY OF SURGEON.—D. R., Iowa, says "that he had a valuable mare that was badly cut on a wire fence. Under the advice of neighbors he consulted one of the best veterinary surgeons in the country, who looked at the animal, and said he could do a good job. In the operation the mare bled to death, and he wants to know if he can make the veterinary surgeon pay for the mare." Doctors and veterinary surgeons are not insurers against accidents which might occur in such cases. If the veterinary surgeon was not guilty of malpractice—that is, if he exercised proper discretion and judgment in performance of his duty—I would say you could not recover, unless he made an express contract with you that he would pay for the mare if she died.

LABOR ON RENTED FARMS.—G. M., Illinois, writes: "A man rented a farm and gave cash rent in good judgment-notes for six years last past, and the notes were paid off as they became due each year, and the tenant kept on improving the farm as the landlord wished. The landlord agreed to pay for such work, but refuses to allow the tenant to keep it out of the notes. Can the tenant recover for this labor?" Yes, I would say he could, provided he can prove the contract. The mere fact of giving new notes each year and paying them off would not alone be conclusive that the landlord had paid for such matters. Yet it would be evidence tending to show that the landlord had made no such contract, or, if he had made such contract, that it was understood when such new leases were made that such labor was not to be paid for.

RIGHT TO WILD BEES.—O. C. L., Iowa, writes: "A. owns a tract of timber which is fenced in. Several of the trees have wild bees in them. Is it necessary for A. to mark the trees to keep other parties from entering and taking the bees and honey and cutting the trees down, and what is the penalty?" At common law wild animals and things of that character belong to the person that gets them in his possession, and if the bees and honey could be gotten by other parties without cutting down the trees. and without trespassing on your land, they could get a good title to the bees and honey. They have no right to cut down your trees, nor have they any right to trespass on your property. You might sue them for the injury that they committed, or possibly have them arrested for trespassing on your premises. However, unless you marked the trees you could not recover the value of the bees.

When the Public has faith in a name it is a faith that must be backed up by good works.

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Sold by every jeweler in the land. Guaranteed by the world's greatest watch works. Illustrated booklet mailed free.

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25c CARPET OFFER

This is a good, heavy, 36-inch width GRANITE CARPET.

New floral design; red, green or wine background with handsome contrasting colors in floral design.

NO BETTER WEARING CARPET MADE.

OUR OFFER: Send us this ad., state whether you wish red, green or wine ground and number of yards wanted, enclose 25 cents per yard, and we will send the carpet to you with the understanding that if you do not find it perfectly satisfactory and about one-half the price charged by dealers in your town, you can return it to us at our expense and we will immediately return your money, together with any freight or express charges paid by you.

BIG CARPET SAMPLES FREE. If you want to see samples before ordering, cut this ad. out and send to us and we will send you at once 36 Color Sample Plates taken from 1½-yard lengths, also our COMPLETE CARPET CATALOGUE OF EVERYTHING IN BRUSSELS, VELVET, AXMINSTER, ALSO ALL WOOL AND HALF WOOL INGRAINS AND GRANITE CARPETS, ART SQUARES, RUGS, ETC., and all at prices heretofore unknown. The catalogue also explains how all samples are furnished free. Catalogue is free, write for it. Address,

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Don't Die of Consumption

A Positive Cure Found by a Celebrated Michigan Physician—He Sends a Large Trial Package Free by Mail to All Who Write

At last a cure has been found. Incredible as it may seem, after the centuries of failure, a

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positive and certain cure for the deadly consumption has at last been discovered. It remained for a great physician of Michigan to find the only known cure for consumption, after almost a life's work spent in experimenting and study.

Consumptives who have returned from the West—came home to die because they thought nothing could be done for them—have tried this new discovery, and are now well and strong.

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A wonderful home remedy that quickly cures Catarrh where the mucous drops down the throat and lungs, sickening the stomach and causing bad breath and many diseases including consumption. The discoverer, C. E. Gauss, 818 Main St., Marshall, Mich., will gladly send to any address a trial package of the remedy so you can try it at home and be satisfied that it is a genuine catarrh cure. Write to-day, it's free.

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If afflicted with weak eyes use Thompson's Eye Water

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An interesting descriptive booklet is sent free, which gives the highest testimonials as to its value. All Druggists.

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Drunkard

If so, send us your name & address, we will send you a package of our "Secret Cure" free, in a plain package with full directions how to give it secretly in tea, coffee, food, etc. It is odorless & tasteless, & will cure this dreadful habit, quickly & permanently without the patient's knowledge or consent. It is a positive & permanent "Secret Cure" for the Drink Habit & will cost you nothing to try it.

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Free Rupture Cure

If ruptured write to Dr. W. S. Rice, 1555 Main St., Adams, N. Y., and he will send free a trial of his wonderful method. Whether skeptical or not get this free method and try the remarkable invention that cures without pain, danger, operation or detention from work. Write to-day. Don't wait.

$3 a Day Sure Send us your address and we will show you how to make $3 a day absolutely sure; we furnish the work and teach you free, you work in the locality where you live. Send us your address and we will explain the business fully, remember we guarantee a clear profit of $3 for every day's work, absolutely sure. Write at once.

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ANY LADY *Can Easily Make* $18 TO $25 weekly by representing us in her locality and as the position is pleasant and profitable the year round we will gladly send particulars free to all. Even your spare time is valuable. This is no deception, and if you really want to make money address WOMAN'S MUTUAL BENEFIT CO., Box 19, JOLIET, ILL.

BED-WETTING CURED. Sample FREE Dr. F. E. May, Bloomington, Ill.

This exquisite Calendar in ten colors

is an **exact reproduction** of the charming water-color originals by Maud Stumm, the noted American Water-colorist. Whether you are fond of sweet faces, pretty, dainty gowns and dresses, or delicately tinted, sweet-smelling flowers, this calendar, in **all the original tints and colorings,** will appeal to you. There are six different designs: One is of a dashing brunette, arrayed in an airy gown of pink, and carrying an immense bunch of holly in one arm and some sprigs of mistletoe in the other hand; another is an auburn-haired beauty, gowned in a soft, clinging dress of white, and carrying a gorgeous bunch of American Beauty roses; another is a perfect blonde, dressed in soft greens, and holding some purple lilies. The three which we do not show, owing to lack of space, are of a girl in yellow and white, carrying chrysanthemums; one in light blue, holding pink roses, and another in a lavender evening gown and exquisite opera-cape, with an immense bunch of violets on her breast. These are made up in different combinations of three sheets each. The three designs we show here will give you an idea of the exquisiteness of them all.

Given Free

One of these beautiful calendars will be sent **FREE** to any one inclosing 40 cents for a year's subscription to the FARM AND FIRESIDE.

(When this offer is accepted no cash commission will be allowed, neither will the name be counted in a club)

The three sheets (each 13 by 10 inches) are tied together with a silk ribbon, so that they may be readily hung up.

Present Subscribers sending 40 cents may extend their subscription one year from time their present subscription expires, and secure this exquisite three-sheet calendar.

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We will give this beautiful calendar to any one sending us one new subscription of some one else (not in their own family) to the FARM AND FIRESIDE.

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$1,000.00 Cash Will Be Given For Solving Puzzle No. 1

Just a simple little box with fifteen blocks, numbered from 1 to 15, as shown in the illustration. Place them in the box exactly as shown in the large illustration, Fig. 1; that is, in straight numerical order, except that the "15" block is placed in front of the "14" block.

Puzzle No. 1 is to move the blocks about (without jumping, turning the blocks, or removing any of the blocks from the box) and bring them in the position shown in Fig. 2.

For the first correct solution of this puzzle in the fewest number of moves, according to these conditions, received before January 20th, a cash prize of One Thousand Dollars will be given, provided the party obtains a puzzle with certificate from us.

$25.00 in Other Cash Prizes

Puzzle No. 2 Start with the blocks as in Fig. 1; move the blocks so as to get the numbers in regular order, but with the vacant square at the upper left-hand corner instead of the lower right-hand corner; see Fig. 3.

Puzzle No. 3 Start with blocks as in Fig. 1, and move blocks to positions as in Fig. 4. The blocks must be slid about, and must not be jumped or taken out of the box.

These prizes are offered only to those securing puzzles of us.

Every one contesting for any of these Prizes MUST inclose with their solution a certificate found in each box of our Puzzles.

For the first correct solution, in the fewest number of moves, of either Puzzle No. 2 or No. 3, received between January 10th and 20th, we will give $10.00; for the second, $7.00; third, $5.00; fourth, $2.00, and fifth, $1.00. In case two or more send correct solutions in the same number of moves, the post-mark on the envelopes will decide which is first.

In every instance it must be borne in mind that it is a question of speed as well as accuracy. It must be definitely understood that the prizes will be given to the subscriber sending in the correct answers in the *fewest number of moves.* We cannot answer any questions about this puzzle. Place nothing in your letter except the certificate, your answer, and your name and address.

Fig. 1 The correct way the blocks *must be placed* before commencing the puzzles.

One of the "15 Puzzles" in a neat box will be sent by mail for 15 cents.

Two mailed for 25 cents.

Three mailed for 30 cents.

A certificate is included with each Puzzle, which entitles holder to compete for all prizes offered.

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	

Fig. 2 These are the correct positions that the blocks will be in when Puzzle No. 1 is correctly solved.

	1	2	3
4	5	6	7
8	9	10	11
12	13	14	15

Fig. 3 Correct positions that blocks will be in when Puzzle No. 2 is correctly solved.

4	8	12	
3	7	11	15
2	6	10	14
1	5	9	13

Fig. 4 Correct positions that blocks will be in when Puzzle No. 3 is correctly solved.

How to Secure a Puzzle FREE One of our "15 Puzzles," including a certificate, which entitles the holder to compete for all prizes offered, will be sent FREE to any one inclosing 35 cents for a year's subscription to the FARM AND FIRESIDE. Present subscribers sending 35 cents may extend their subscription one year from time present subscription expires, and secure one of the fascinating, prize-winning Puzzles FREE. We will give one of the prize-winning Puzzles to any one sending us one new subscription of some one else (not in their own family) to the FARM AND FIRESIDE.

Address FARM AND FIRESIDE, Springfield, Ohio

FINE NEW PATTERNS ONLY 10 CENTS

These patterns retail in fashion bazaars and stores for twenty-five to forty cents each, but in order to increase the demand for our paper among strangers, and to make it more valuable than ever to our old friends, we offer them to the lady readers of our paper for the low price of only **10 cents each. Or,**

FREE **We will give any TWO of these patterns for sending ONE yearly subscription new or renewal, to the FARM AND FIRESIDE at the clubbing price of 35 cents.**

Or, we will send the FARM AND FIRESIDE One Year, new or renewal, and any ONE pattern for Only 35 Cents

Full descriptions and directions—as the number of yards of material required, the number and names of the different pieces in the pattern, how to cut and fit and put the garment together—are sent with each pattern, *with a picture of the garment to go by.* These patterns are complete in every particular, there being a *separate* pattern for *every single piece* of the dress. All orders filled promptly.

For ladies, give BUST measure in inches. For SKIRT patterns, give WAIST measure in inches.

For misses, boys, girls or children, give both BREAST measure in inches and age in years. Order patterns by their numbers.

Satisfaction guaranteed or money refunded.

To get BUST and BREAST measure, put the tape-measure ALL of the way around the body, over the dress, close under the arms.

Special price of each pattern 10 cents.

Postage one cent EXTRA on skirt, tea-gown and other heavy patterns.

Address FARM AND FIRESIDE, Springfield, Ohio

No. 3980.—LADIES' WRAPPER WITH SQUARE YOKE. 11 cents. Sizes, 32 to 42 inches bust.

No. 4301.—BLOUSE SHIRTWAIST. 10 cents. Sizes, 32 to 40 inches bust.

No. 4242.—GIRLS' COSTUME. 10 cents. Sizes, 4 to 10 years.

No. 4299.—BREAKFAST-JACKET. 10 cents. Sizes, 32 to 42 inches bust.

No. 4272.—GIRLS' NIGHT-GOWN. 10 cents. Sizes, 2 to 10 years.

No. 4261.—DOUBLE-BREASTED COAT. 10 cents. Sizes, 32 to 40 inches bust.

No. 4227.—BOYS' BLOUSE SUIT. 10 cents. Sizes, 4 to 12 years.

No. 4304.—GIRLS' COAT. 10 cents. Sizes, 4 to 12 years.

No. 4303.—MISSES' NINE-GORED SLOT-SEAM SKIRT. 11 cents. Sizes, 12 to 16 years.

No. 4302.—CHILD'S SLEEPING-SUIT. 10c. Sizes, 2 to 8 years.

No. 4274.—GIRLS' RUSSIAN DRESS. 10 cents. Sizes, 4 to 12 years.

No. 4250.—BLOUSE SHIRTWAIST. 10 cents. Sizes, 32 to 40 inches bust.

Be Quick! Contest Closes Jan. 1st.

$100.00

In Gold For You

WE WILL GIVE $100.00 IN CASH to the person who suggests the most appropriate name for our beautiful new picture, illustrated on this page. Any one ordering one of the pictures together with a year's subscription to the FARM AND FIRESIDE will be allowed to suggest one name. See offers below.

As Announced, this Contest

closes with the month of December. The last day of the month falling on Wednesday, names received at our Springfield office Thursday, January 1, 1903, will be entered in the lists of competitors for the prize. As this paper goes to press two weeks before the date, after receiving your copy you will still have time to suggest a name and equal opportunity with others for the grand cash prize. Make your suggestion at once, and send it by the next mail. Or if you have already sent one suggestion, why not try another? But there's no time to spare. Send at once.

The illustration here can give but a meager idea of the charming beauty of the picture. It must be seen to be appreciated. It is fresh from the artist's brush, and never before offered to the public, so that the FARM AND FIRESIDE readers have the first opportunity to secure a copy.

No. 52 FULL SIZE 20 BY 30 INCHES

No Frame Required

Notice the illustration, and see that the artist has displayed more than the usual amount of genius. He has painted a wide gilt border, in exact imitation of a gold frame, so that a *frame is not needed.*

Ten Colors

The colors and tints, the lights and shadows that the artist uses in his make-up of the sky and the clouds and the distant hills, the vale and the stream and the meadow; the rosy-cheeked, smiling, beautiful young girl, dressed in pink, and her pet, create one of the most striking and exquisite color pictures of its kind that we have ever seen. The artist has employed no less than ten of the most delicate and beautiful colors and gold in his creation of this charming work of art.

Special Offer, If Accepted at Once

We will send one copy of our exquisite calendar (see page 20), in ten colors, ABSOLUTELY FREE, to any one accepting any one of the three offers below, provided that you ORDER AT ONCE and state that you want the calendar. This offer will not appear again, and is void after January 1, 1903, so ORDER AT ONCE.

Send your order for the paper and picture (No. 52) on a separate sheet of paper. Write the names you suggest on separate pieces of paper.

AN IMPARTIAL COMMITTEE will be appointed to choose from among the names that which they believe to be the most appropriate.

THE PERSON SUGGESTING THE NAME THE COMMITTEE ADOPTS WILL RECEIVE $100.00 IN CASH

THE CONTEST CLOSES JANUARY 1, 1903

We will pay agents, canvassers and club-raisers a handsome cash commission to take orders, in connection with yearly subscriptions to the FARM AND FIRESIDE, for this beautiful new picture that needs no frame.

Ways to get the $100.00

1st We will send one copy of this magnificent new picture together with a whole year's subscription to the FARM AND FIRESIDE, new or renewal, and allow you to suggest one name for the picture, for only 50 cents. Contest closes January 1, 1903. (See Special Offer above.)

2d You can accept any offer in our paper which includes a year's subscription to the FARM AND FIRESIDE, and add 25 cents extra for one of these pictures, and be entitled to suggest one name for this exquisite and charming new picture. (See Special Offer above.)

3d For $1.00 we will send three yearly subscriptions to the FARM AND FIRESIDE (regular clubbing rate is 35 cents each) and three pictures, and you will be entitled to suggest three different names for the picture. The papers and pictures can go to different addresses. (See Special Offer above.)

Address FARM AND FIRESIDE, Springfield, Ohio

Witty Sayings and Humorous Doings

MOVED

THE "Old Lindley House" was in its day a fine structure, but it has fallen from its high estate, and the ground floor has been given over to little stores. One of these was kept by a droll fellow named Jo Belton. As time went on and brought prosperity to him, he moved into a larger store in the same street, further up-town. Passing his former place of business a day or two after his removal, I saw in the window this legend: "Gone to a better place above."—E. R. S., in Harper's Magazine.

Boy—"You needn't come hanging around me. I haven't got any peanuts."

VICE VERSA

Mrs. Brown—"I hate to make complaint of my neighbors' children, Mrs. Greene, but your boy has been behaving disgracefully. He has been throwing stones at my front door, and ringing the bell."

Mrs. Greene—"My boy has been away from town all day. It happens that it was your own son who did the things you complain of."

Mrs. Brown—"Was it, indeed? Johnny's such a playful fellow! He's so full of life, you know."—Boston Transcript.

DIDN'T KNOW IT ALL

Some wags from a neighboring town who strolled into the post-office one day thought they would have some sport with the wise man.

"I suppose it's pretty dead up here, Mr. Pratt," said one.

"Well, not so dead as you think. I guess there ain't much goes on that we don't hear about, even if it don't happen right here."

"Why, you people don't know the war's over," said another, falling back on the stock phrase.

"Oh, you can't work that dodge on me," replied the postmaster, looking shrewdly over his spectacles. "I guess I follered the negotiations with Kitchener in the papers."

"But there are some things that aren't in the papers," said another youth. "I don't believe you know when Shakespeare died."

"Well, no," said the postmaster; "I didn't know that he was dead, but I heard last week he was pretty low."—Youth's Companion.

HIS EXPERIENCE

Hix—"Every time I pick up a hair-pin on the street I get a letter. I never knew it to fail."

Dix—"I did. I picked up one the other day, and put it in my pocket, but I didn't get a letter."

Hix—"You didn't?"

Dix—"No. But my wife found it, and I got a lecture."—Chicago News.

HIS BASIS

"Lemme see that there menyoo, John," said Mr. Meddergrass to his city nephew, who was giving the old gentleman a lunch at the Stalledoff-Castoria.

"Well, Uncle," laughed John, "if you want to know what that dish is that you are eating, I can tell you without your finding it on the menu. It is lobster à la Newburg, with little pease."

"I know what it is, all right, Johnny," said Mr. Meddergrass. "I jest wanted to see what it costs, so's to know whether I'm enjoyin' it or not."—Judge.

MAYBE

Archbishop Ryan, visiting a small parish in a mining district for the purpose of administering confirmation, asked one nervous little girl what matrimony was, and she answered that it was "a state of terrible torment, which those who enter it are compelled to undergo for a time to prepare them for a brighter and better world."

"No, no," remonstrated the pastor. "That isn't matrimony; that's the definition of purgatory."

"Leave her alone," said the archbishop; "maybe she's right. What do you or I know about it?"—Argonaut.

AS TO SUPPLY AND DEMAND

Senator Depew was talking politics with a man who declared that the price of everything depended on the law of supply and demand.

"That is not always true," said the Senator. "I asked a German butcher the other day the price of sausage.

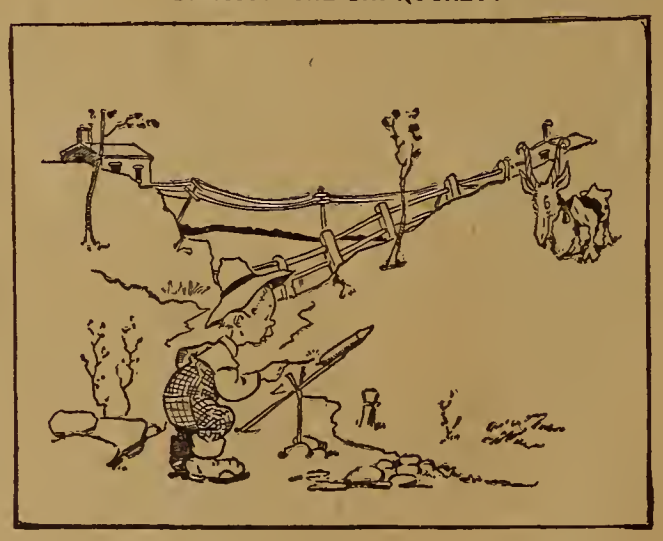
"'Fifdeen cends a bound,' he said, adding, after a momentary pause, 'bud I don'd god any alretty.'

"I asked him why he quoted a price when he could not deliver the goods.

"'Oh,' he explained. 'If I hat some, der brice vould be dwendy cends. But I haf none, so I make der brice low. It gifs me a rebudashun, und it gosts me noddings.'

"So you see, the price went down when there was no supply and no demand, for I didn't want sausage, and had asked merely to gratify my love of talking."—New York Times.

WHAT HAPPENED TO THE GOAT THAT TRIED TO SWALLOW THE SKY-ROCKET!



I.

II.

III.

IV.

A TRICK OF THE TRADE

"Why are you so careful to make your prescriptions perfectly legible?" inquired the old practitioner.

"Because I don't care to take any chances on the druggist making a mistake," replied the young physician.

"That is all very well," returned the other, with a superior smile. "But suppose you make a mistake yourself. How can you blame it on the druggist, when your writing is so plain that any fool can read it?"

And the young man was compelled to acknowledge that, although he had graduated at the head of his class, there were still some things left for him to learn.—Life.

Teacher—"Now suppose you went to a store to buy some marbles, and they were a cent and a half apiece; how much would ten cost?"

Pupil—"I'd ask the man."

NATURALLY

Visitor—"That young fellow seems rather pert; acts as if he really knew more than you."

Merchant—"Naturally."

Visitor—"Why naturally?"

Merchant—"He's my son."—Philadelphia Press.

THE BEST WURST

"Is this the best wurst you can send me?" asked the lady who walked into the meat-store with a package of that edible in her hand.

"Madam," answered the meat man, "it is the best wurst we have."

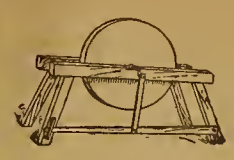
"Well, it is the worst wurst I ever saw!"

"I am sorry to hear that. The best I can do is to try and send you some better wurst from to-day's lot; but, as I said, that is the best wurst we have at present. I am sure, however, that the wurst we are now making will not be any worse than this, and it ought to be better. I assure you that as soon as I get the wurst you shall have the best of it. We never gave any one the worst of it so long as we have been in the wurst business, and you may be sure that when we give you your wurst it will be the best, for our worst wurst is better wurst than the best wurst of our competitors."

But the lady, whose eyes had taken on a stare of glassiness, was seen to throw up her hands and flee from the place, for she was afraid the worst was yet to come.—Baltimore American.

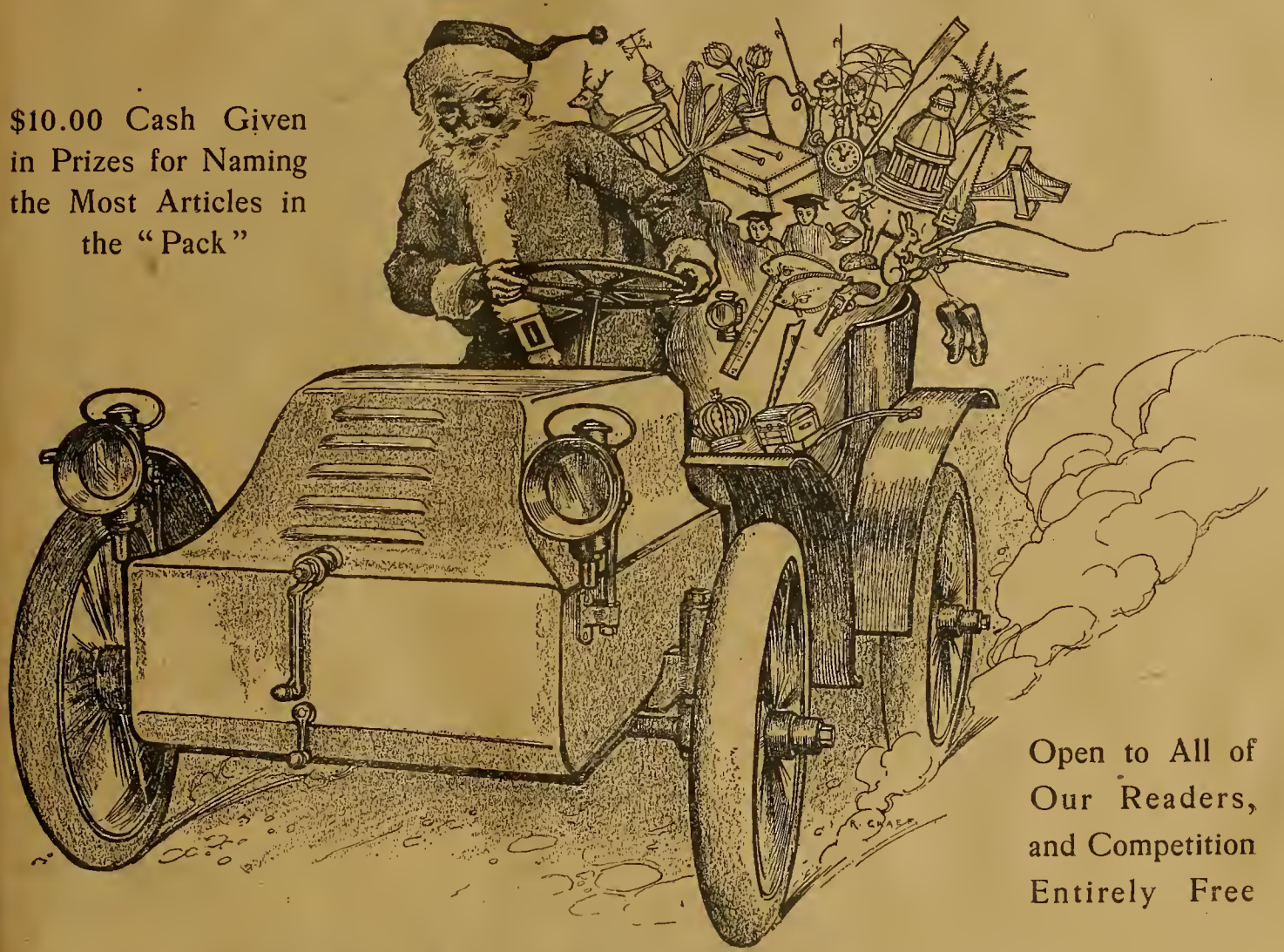
Prize Puzzles

We Want to be Neighborly, and so Invite All of Our Readers to Use Our Grindstone. It Will Sharpen Your Wits, Quicken the Intellect, Afford Healthful Recreation, and Give Innocent Amusement and Entertainment



Our Automobile Puzzle

$10.00 Cash Given in Prizes for Naming the Most Articles in the "Pack"



Open to All of Our Readers, and Competition Entirely Free

PRIZES AMOUNTING TO $10.00 CASH

will be given to the five persons who find in the automobile the greatest number of articles that have a name identical with some part of the human body, even though the name is differently spelled. You will be sure to find many more such articles than you would at first imagine. It will be easy enough to guess that the two ears of corn stand for ears, that the flowers are tulips (two lips), and the bridge a part of the nose, but there are dozens of other names far more difficult to identify.

It is not the first received, but the best answer that wins the first prize of five dollars.

The second best answer will be awarded the second prize, two dollars.

The next three best answers will each be awarded the third, fourth and fifth prizes, of one dollar each.

The winning answers must reach this office not later than January 20, 1903, and must be addressed to Puzzle Editor, Farm and Fireside, Springfield, Ohio.

A PRIZE PUZZLE FOR OUR BOYS AND GIRLS

FOUR WINNERS WILL GET $6.00

In cutting this cake of cheese our grocer, with a large knife, made six cuts in the directions shown in the diagram. How many separate pieces of cheese did he obtain by this division?

To the boy sending us the most neatly written correct answer to this puzzle we will give a prize of two dollars. And to the boy sending the second best written correct answer we will send one dollar.

To the girl sending us the most neatly written correct answer to this puzzle we will give a prize of two dollars. And we will send one dollar to the girl sending the second best written correct answer.

To be considered, answers must reach us by January 20, 1903. Address Puzzle Editor, Farm and Fireside, Springfield, Ohio.

OUR JANUARY RIDDLES

Fifty-one Prizes are Offered—$2.00 Cash for the First Prize, and Fifty Full Yearly Subscriptions, as Follows:

To afford pleasant and profitable entertainment for our readers, we present five riddles, or problems, of not very difficult solution, and to awaken a lively interest we offer a number of prizes, as named below. All of our readers are invited to participate in the contest, which is free of any kind of charge or condition.

1—A Beggar had a Brother, the Brother died, and the man who died had no Brother.

2—What is the third and a half of a third and a half of ten?

3—A puzzling laundry sign reads:
When collars six and seven cuffs there be,
Then we'll charge you thirty-three;
For collars seven and six cuffs to do,
Our usual charge is thirty-two.
You'll find the price very cheap.
Pray you, figure out the cost of each.

4—A man left nineteen sheep to three heirs, one to get one half, one to get one fourth, and one to get one fifth. No sheep were to be killed, and all were to be dealt fairly with. How would you do it?

5—A lady walking to town with a basket of eggs was run into by a gentleman driving by. The lady fell, and broke all the eggs. The gentleman apologized, and offered to pay for the eggs, asking how many she had. The lady replied, "When counted two, three, four, five or six at a time, always one remained; but if counted seven at a time they came out even." How many had she?

Two dollars in cash will be given to the first person sending a complete list of correct answers to all of the five riddles.

A year's subscription to the Farm and Fireside will be given for the first complete list of correct answers received from each state and territory. This means a year's subscription for each of the forty-five states, one for each territory, and one for the District of Columbia. The first complete and correct list from each state wins a prize. This gives equal opportunity to all our readers, wherever located.

Answers must reach this office not later than January 20, 1903, and must be addressed to the Puzzle Editor, Farm and Fireside, Springfield, Ohio.

CURES ANY DISEASE

A New and Wonderfully Successful Method of Curing All Chronic and Lingering Afflictions.

A Free Trial Package of This Remarkable Discovery Will Be Mailed to All Who Write.

Any one who suffers from a weak, disordered condition of the heart, lungs, kidneys, stomach, blood, liver, skin, muscles or nervous system should write at once for a free trial treatment of a new method that is rapidly displacing the old ways of curing disease.

DR. U. G. LIPES

Gout, partial paralysis, dropsy, locomotor-ataxia, rheumatism, neuralgia or any other disease resulting from high living quickly and permanently removed by the new method.

Weakness or debility in any form, whether in man or woman, entirely eradicated from the system by the new treatment.

Consumption, bronchitis, asthma, catarrh, impure blood, heart disease, kidney and bladder trouble and liver complaint cured to stay cured by the doctor's wonderful remedies.

If you are the victim of any malady or sickness which you have long wanted to get rid of, try one of Dr. Lipes' free treatments, and see how easy it is to be cured when the proper means are employed.

If you have aches or pains, don't feel well at times; if you are despondent and discouraged, tired out, it is because you have some terrible disease lurking in your system.

Why not write to Dr. Lipes, get a free trial treatment, and let him show you how quickly you can be cured by his new method? It makes no difference what your peculiar ailment may be, Dr. Lipes will send you a trial treatment entirely free of charge to prove to you that he can do as he claims.

Write to-day, telling the doctor what you wish to be cured of, and receive the free treatment for it by return mail. There are no conditions whatever. Dr. Lipes' generous offer is meant for everybody who suffers from disease in any of its various forms. Address Dr. U. G. Lipes, 112 Stevenson Building, Indianapolis, Ind. No one should miss this grand opportunity of securing the benefits of the doctor's latest discovery, since it costs you nothing.

Free Hair Grower

A trial package of a new and wonderful remedy mailed free to convince people it actually grows hair, stops hair falling out, removes dandruff and quickly restores luxuriant growth to shining scalps, eyebrows and eyelashes. Send your name and address to the Altenheim Medical Dispensary, 7645 Foso Bldg., Cincinnati, Ohio, for a Free trial package, inclosing a 2-cent stamp to cover postage. Write to-day.

FREE ELECTRIC BELT OFFER

WITH TEN DAYS' FREE WEARING TRIAL In your own home, we furnish the genuine and only HEIDELBERG ALTERNATING CURRENT ELECTRIC BELTS to any reader of this paper. No money in advance; very low cost; positive guarantee. COSTS ALMOST NOTHING compared with most all other treatments. Cures when all other electric belts, appliances and remedies fail. QUICK CURE for more than 50 ailments. ONLY SURE CURE for all nervous diseases, weaknesses and disorders. For complete sealed confidential catalogue, cut this ad. out and mail to us

SEARS, ROEBUCK & CO., CHICAGO.

RUPTURE SURE CURE at home, book free Capt. W. A. Collings, Box 45, Smithville, N. Y.

Angels Whisper Beautiful, large, colored picture; sells quickly at 25c.; sample 12c.; 9 for $1.00. J. Lee, Omaha Bldg., Chicago.

If afflicted with weak eyes, use **Thompson's Eye Water**

Twenty-Five Hundred Strong

We Await Your Orders

Each employee thoroughly trained to attend to his or her special part of your order in the quickest possible time and without mistake. Not only best goods at lowest prices, but PROMPT SHIPMENTS are largely responsible for our immense and still rapidly increasing business. Ninety-seven out of every hundred orders are shipped within 3 days after being received and thousands are shipped the same day.

Don't you think it would pay you to trade with us? From our large catalogue you can buy everything you need at wholesale prices. Fill out the coupon and send it with 15 cents for our catalogue TODAY—you will more than save your money on the first order you send us.

Why not place your Mid-Winter Order with us?

What will you need during January and February?

Look ahead—Better begin by filling out coupon below.

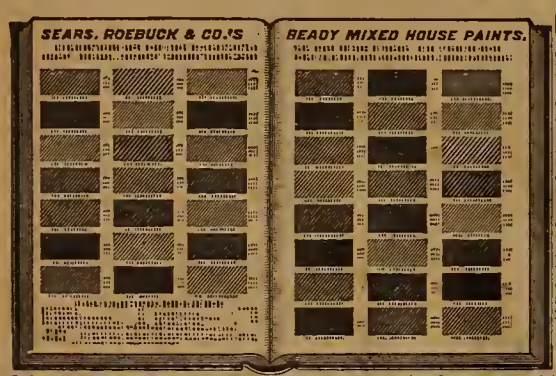
SAVE YOUR EYES Write for special spectacle catalogue with instructions for fitting, free.

17

CUT OUT THIS COUPON
Send for Catalogue TODAY and get ready for Spring "fixing up."
Montgomery Ward & Co., Chicago.
Enclosed find 15 cents, for which please send me Catalogue No. 71.
Name _____
Write very plain.
Express Office _____ Post Office _____
County _____ State _____

Montgomery Ward & Co., Chicago

DOES YOUR HOUSE NEED PAINTING?



OUR FREE SAMPLE OFFER

Cut this ad out and mail to us, and we will send you FREE by return mail postpaid, **OUR BIG NEW PAINT COLOR SAMPLE BOOK.** This free book contains samples showing the exact color of every shade of ready mixed House, Barn, Graphite-Creosote, Floor, Roof, Mineral, Enamel and Buggy Paint, also everything in paint and painters' supplies, including oils, lead, varnishes, dry colors, stains, brushes, sundries, etc.

THE FREE BOOK CONTAINS a big fund of information on how to paint, how to select colors, kind of paint to use for different work, just how much paint is required to cover a given space, makes everything so plain that anyone without previous experience can do almost any job of painting. **THE FREE BOOK** shows a number of buildings in colors, intended to aid you in selecting colors for body, trimming, inside, etc.

45C PER GALLON for barn paint. **53C PER GALLON** for highest grade Graphite-Creosote paint for barns, fences, iron, etc.

85C PER GALLON for highest grade ready mixed white lead and oil house paint.

ABILENE, our own special ready mixed paint for houses and barns, for wood, brick, stone or iron surfaces, for finest inside finish or coarsest outside work, is sold under our binding guarantee as the best paint made, will cover double the surface, last twice as long, at one-half the cost of other paint, never cracks, peels or blisters, guaranteed for five years and will look better at the end of five years than other paint will after one year. Testimonials from painters everywhere and color samples of ABILENE in our FREE COLOR SAMPLE BOOK.

ALL PAINT MADE IN OUR OWN FACTORY. We own our own paint factory, and every gallon of ready mixed paint we sell is MADE IN OUR OWN FACTORY. We buy the raw materials direct from first hands, thus insuring the highest quality. We grind, mix and make it from our own formulas, and we furnish it direct to our customers at the actual cost to produce in our own factory with but our one small profit added.

IF YOU WANT TO PAINT YOUR HOUSE, BARN OR OTHER BUILDINGS, we will send you the paint (from our own factory), with the understanding and agreement, that if you don't find our ready mixed paint better in quality and much lower in price than you can buy elsewhere, you can return it at our expense and we will immediately return your money. WRITE FOR OUR COLOR BOOK IF YOU NEED PAINT. Address, **SEARS, ROEBUCK & CO., CHICAGO.**

$115=FARMERS' SAW MILL!=$115

Awarded First Prize and Gold Medal, World's Fair, Chicago, 1893

To introduce OUR NEW FARMERS' SAW MILL, fitted with DeLOACH Variable Friction Feed, we make this special offer:

We will deliver on cars at Factory our No. O PONY FARMERS' SAW MILL, with DeLoach Patent Variable Friction Feed, Duplex Dogs, Improved Head Blocks and Ratchet Set Works, complete as shown in cut, except has Carriage made in two four-foot sections, with Rope Drive instead of Rack and Pinion, without Saw or Belt, for

$115.00 Spot Cash!

With 36-inch Solid Saw, $127.50; 40-inch, $132.50; 44-inch, $140.00; 48-inch, $150.00.
With 36-inch Inserted Saw, $147.50; 40-inch, $152.50; 44-inch, $160.00; 48-inch, $170.00.
Best Rubber Belting, 4-ply, 6-inch, 20 cents per foot; 8-inch, 30 cents per foot, net cash.
NO DISCOUNTS FROM THESE PRICES.

Harry Hootman, Washington, Pa., says: "The little DeLoach Mill is surely a Dandy. I cut 4,800 feet of hard oak per day with 10 h. p. A man near me bought a ——— mill and only cuts 1,500 feet a day with 20 h. p. This shows that your mills are surely ahead of the rest.

OUR GUARANTEE: This Mill is warranted to be made in workmanlike manner, of first-class material throughout, and to give perfect satisfaction if operated according to our printed instructions, which are so simple that a boy can understand them. ANY ONE WITH ORDINARY INTELLIGENCE CAN SET AND OPERATE THIS MILL without the assistance of an experienced sawyer or mill man. The Mill will easily cut 2,000 to 2,500 feet of first-class lumber per day with only FOUR HORSE-POWER; 3,000 to 3,500 feet with 6 horse-power; 4,000 to 5,000 with 8 horse-power, etc., and is adapted to any kind or size power up to 15 horse-power. IF INTERESTED, write for large illustrated catalogue of **DeLOACH Patent Saw Mills to suit any power, from 4 to 200 h. p.; Shingle Mill Machinery, Drag Saws, Planers, Edgers, Trimmers, Stave and Lath Mills, Bolters, Corn and Buhr Mills, Water Wheels,** Shafting, Pulleys, Gearing, etc. (Be sure to say you saw our ad. in this paper.) Address

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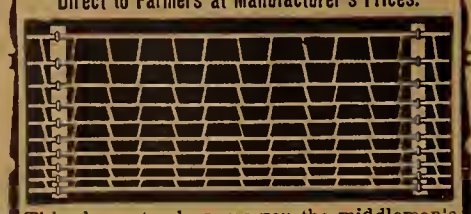

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Gravel Walks

By WALTER E. ANDREWS

"SAY, Hank," remarked Deacon Pepperton one evening, as he sat on Mr. Peters' front-door step, "why does your gravel walk look so much better'n mine?"

"You made yours just the same as I made mine, didn't you?" asked Hank Peters, as he looked up innocently at the Deacon.

"Y-e-s; but it doesn't have the same look, somehow."

"Mebbe it needs hoein'," suggested Hank.

"'Tain't so very weedy," said the Deacon, reflectively.

"Then mebbe it needs to have the edges trimmed."

"Trimmed! D'ye suppose I've got time to be a-fussin' with shears? It's all I can do to tend to the crops. No, I think the gravel in your walk must be better'n mine—it always seems to keep neat-lookin'."

"Peculiar kind o' gravel, eh?"

The Deacon appeared to detect a vein of sarcasm in this remark, for he rose to his feet, and muttered that it was "time to be a-goin'."

"Don't hurry," begged Mr. Peters. (Hank is a good-hearted fellow, and likes to keep friendly with all the neighbors; in fact, he often inconveniences himself for the sake of harmony.) "Don't hurry, Deacon; I was just goin' to say that an odd hour once or twice a month is what keeps my walk in decent shape. I'm pretty busy with the crops, too, but I manage to give that little amount o' time to the walk. If I didn't, mine would soon look the same as yours—beggin' your pardon for plain speakin'."

The Deacon looked incredulous. Hank saw the look, and quietly added, "If you'll let me, I'll come over in the mornin' an' fix a piece o' your walk the same as I fix mine. Then you'll know just how I do it—an' whether it'll pay you to spare the time for it or not."

"You're welcome to come, Hank, but I'm afraid it would be troublin' you too much."

"It'll take only a few minutes. 'An' mebbe I'll need your help about something else some day."

"All right," said the Deacon.

After breakfast the next morning Hank Peters appeared at Deacon Pepperton's, who was waiting for him on the door-step. As it happened, I was on hand, too—with my camera. The three of us inspected the walk together.

"Doesn't look much like Hank's walk, does it?" remarked Deacon Pepperton to me.

"Well—not exactly," I admitted.

"Got a sharp spade—an' a hoe—an' an iron rake?" asked Hank Peters, as he gazed thoughtfully at a piece of the side-yard walk—the part where it curves around to the front-door step.

"O' course," replied the Deacon; and he went to the barn for the needed implements.

While he was gone I took a hasty photograph of the walk as it then appeared.

"The hoe first," said Hank. Seizing it, he made a rapid onslaught on the few weeds and stray bits of grass in the piece of walk selected. In five minutes this part of the work was finished. "Now for the sharp spade," said he.

The Deacon handed it to him.

Hank tried it on the edge of the grass, and a tired look came into his eyes. "Got a file?" he asked.

"Y-e-s," answered the Deacon; "but I should call that spade plenty sharp enough."

DEACON PEPPERTON'S WALK AS IT WAS

DEACON PEPPERTON'S WALK AS HANK LEFT IT

"Mebbe so; but I'd like to try a file on it—if you've no objections."

"Oh, none at all, Hank. I'll get the file."

Hank Peters used another five minutes in the process of sharpening that "sharp" spade. When he had done, it had an edge like a razor; and when he tackled the edge of the grass again it cut like a razor, too.

"But how're you goin' to trim those edges without a line or something to go by?" queried Deacon Pepperton, in helpless doubt.

"What's a fellow's eyes for?" asked Hank, as he jabbed the spade in again and again with unerring precision. "I don't need a line; besides, a line would be no use around curves."

In ten minutes he had the piece of walk nicely outlined on both sides. Then with the hoe he pulled the several pieces of sod into the center of the walk, and pushed the gravel out level and flush with the trimmed edges. Deacon Pepperton still looked doubtful.

"Now for the rake!" exclaimed Hank, briskly.

Soon the rubbish was all neatly raked up, and the Deacon, gaining confidence, fetched a wheelbarrow, and hauled the rubbish away.

Hank Peters sighted critically along the edges of the walk, and seized the spade again. Carefully he sliced off a little sliver of sod here and there, until the edges were uniformly symmetrical. Then, giving the walk a final raking, he put on his coat and looked at his watch.

"Half an hour wasted—eh, Deacon?"

The Deacon looked at the walk, at me and at Hank, and blinked his eyes two or three times. "Well, I'll be—switched!" said he. "I'd never have believed it!"

Hank laughed, and without waiting for further thanks he started "'cross-lots" for home.

The Deacon still gazed in amazement at the changed walk. "I'd never have believed it!" he muttered again.

"Hank's a fine neighbor," said I, as I took a second photograph.

"Yes," assented the Deacon, with his eyes still on the walk.

KINGDOMS FOR A HORSE

If King Richard were with us now he would not be alone in his excited call for a horse. Thousands of men all over the country are wondering what we are going to do in view of the scarcity existing everywhere. For some years it has been apparent that we were fast getting to just this place in the history of our country. The expected has happened, and we are face to face with a horse famine, and this in spite of the electric-car, the bicycle and the automobile. A few years ago almost every farmer managed to raise a colt or two now and then. To-day we rarely see a farmer who has a colt. We send West for our horses, pay an exorbitant price for them, and quite as often as otherwise get a poor return for our money. True, of late we have had unusual demands upon us. South Africa took many for use in the war; and now buyers are in the West, hunting for horses for the Boers who have gone back to their homes. I know that a good many farmers do not like to raise colts—I don't myself—but perhaps we will be compelled to go back to the old way of getting our horses. If we do, one thing we ought to resolve upon: We will not do as was far too often the custom in olden times—wait until our mares are all worn out and broken down, and then let them end their days by raising a colt. Start right. That means with a sound, true mother and a good, honest sire. Then we will have colts of which we may well be proud.

E. L. VINCENT.

FARM AND FIRESIDE

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Mr. Greiner Says:

WINTER PLOWING.—The advantages of plowing our garden lands and the clay loams of our farms in late fall, or any time during the winter when the weather is open, are frequently pointed out by all farm teachers. The practice, however, has not yet become as universal as it deserves to be. If our farmers would do more fall and winter plowing I would have fewer questions to answer, such as how to kill Bermuda grass, what to do for wire-worms, grubs, cutworms, etc.

TO LEARN OUR FARMING METHODS.—The German commission which is to visit the United States next season for the purpose of studying American ways and methods of farming will see a good many things to make them open their eyes in astonishment and wonder, among them especially the general use of labor-saving machinery and devices, the gigantic scale of some of our farm operations, especially in the line of fruit-production, and the democratic manner of intercourse between employer and employee on our farms. They will find that this is a big country with big opportunities, and a people ready to make good use of the latter. What suggestions will they give us in exchange?

COLLEGE RESULTS.—What is the true mission of the agricultural college, anyway? Is it to make farm teachers, farm lecturers and professors or practical and successful farmers? Perhaps both. Farm lecturers and professors are needed, and in good demand, but it does not take a four-year course at an agricultural college for a student to learn all that is required to fit him for the best performance of his life-work as farmer, while many indispensable requirements for the farmer's highest success are not obtained by college training. If a person has not the making of a good farmer in him, if he is lacking in good judgment, in executive ability, the most thorough college education will not make up for it or prevent him from making a miserable failure of the farming business. This, however, is not meant for a denial of the advantages to the young farmer of attending a lecture course, short or otherwise, at an agricultural college.

SWEET-CLOVER HONEY.—J. S. S., a reader in Williamsville, N. Y., tells me that he finds sweet-clover honey nearly equal in quality to white-clover honey. It has the pleasant, aromatic flavor suggested by the fragrance noted in passing through or near a patch of sweet clover. In color, also, it is nearly equal to the best white-clover honey. The consumer may possibly tire sooner of it than of white-clover honey, on account of its somewhat stronger flavor. In 1901 our friend was able to harvest the two crops entirely separately, as there was a short interval between the white-clover and the sweet-clover seasons. Both crops, however, were put in the same grade, and brought the same price, giving equal satisfaction to his customers. Last year the sweet clover did not yield nectar very abundantly, although bees were working on it in swarms in good weather. All these points may be of interest to our bee-keeping readers.

BERMUDA GRASS.—A reader in Tennessee (L. T. H.) has had some experience with this troublesome grass. He says it takes time and persistent effort to make a sure job of killing it. There are three things which Bermuda grass will not stand in continued application—first, to expose the roots to the air and cold during the winter by a frequent stirring of the soil with the plow and harrow; second, to expose the roots to summer's heat by the same means; third, to follow the winter treatment by planting cow-peas or any crop that will shade the ground heavily. A heavy crop of winter wheat, rye, oats or barley, followed quickly by cow-peas, will be very hard on the Bermuda grass (and on other weeds as well). Where there is only a small plot, plow or dig the ground over, and shake the dirt from the roots in any convenient way. A potato-hoe is a good tool for the purpose. Or cover the land heavily with wheat or other straw. Shade and acid fermentation will choke out the grass. Vetch may possibly prove to be even more effective than cow-peas.

INSECTICIDE FOR HOUSE USE.—A reader asks whether it would be safe to fumigate a dwelling-house with the cyanide gas used for cleaning trees of the San Jose scale. This gas is a deadly poison, and should be used only by people who are familiar with its character and use. It can hardly be recommended for fumigating a dwelling-house, unless this is done by an expert. Fumigation by means of burning sulphur in an iron kettle, in rooms that are kept tightly closed for a few hours, seems to me much safer, and effective enough for all purposes if properly and thoroughly done. It will kill bedbugs, flies and other insects, and germs of infectious diseases, besides. The inquiry had special reference to Buffalo carpet-beetles, however. Lay two or three thicknesses of wet cloth over the carpet, and iron it with a hot flat-iron, thus generating steam, which will kill most of the beetles. Or take up the carpets, and spray the floor and the carpets thoroughly with benzin, being careful to keep lighted lamps, etc., away until the benzin is all evaporated and has escaped out of the room.

HAY CROP AFTER STRAWBERRIES.—A Wisconsin subscriber is going to plow up his strawberry-bed after gathering the next crop, and needing something that can serve as cattle-feed while the hay-mow is not well filled, hits upon oats or cow-peas as a hay substitute. If the summer happens to be moist and cool, oats and peas might do first-rate. In fact, I frequently sow a patch of it in the course of the summer, and have a nice lot of late fall feed. July 12th, however, is somewhat late for a hay crop, unless one selects Hungarian grass, which during the usual hot weather of July and August grows quickly, and may be cut and cured for hay in early fall. I have had good crops and secured considerable valuable feeding-stuff. I usually plow up the old strawberry-bed shortly after fruiting, and it is always a question what is the best use that can be made of the land. To provide fodder in case of shortage I sometimes plant early sweet corn, such as Mexican Sweet, but more usually for feeding green than with an idea that I can get it fully matured and cured for dry fodder. In most cases I plant garden crops on the old strawberry-patch, such as turnips, radishes, spinach, early table-beets and table-carrots. Table-beets, such as the Eclipse, when planted at that time, sometimes make large beets that may be harvested and utilized for cattle-feeding. Sugar-beets cannot be expected to have time enough for making a large crop under such circumstances. This answers the reader's inquiries quite explicitly.

Mr. Grundy Says:

BE READY FOR PLANTING-TIME.—The sun is on its way back from the south, and another planting-time will soon be here. The fact that spring is coming is a pleasant thought to the farmer, and as the days lengthen and the sun grows warmer he lays his plans for the spring campaign in high hopes that the autumn will bring him the rich reward of a bountiful harvest. The better one plans, the better is likely to be his success. Of course, we have to wait on the season and watch our chances, but if we know just what to do when everything is favorable there is not a moment of delay at any time during the season. If unfavorable weather stops us while performing one task, we can at once turn to another. We must keep in mind that a task well begun is soonest done, and try to so arrange matters that we will be able to push our work instead of allowing it to push us.

OVERHAUL THE FARM MACHINERY.—We will have mild days occasionally in the latter part of winter, and during such days it is a good idea to overhaul the farm machinery. Examine it thoroughly to see where it is wearing out, where repairs are needed, whether it will stand the strain of another season's work. Have a small note-book and pencil in your pocket, and make a note in it of what is needed in the way of repairs, and also what is likely to be needed before the close of the season. Then take this list with you the first time you go to town, and get the repairs and store them away for use when needed. If the plows are likely to need new shares, now is the time to get them; don't wait until work commences, because then is the time when "everybody" is wanting such things, and there is sure to be more or less delay in procuring them. See if the singletree-clips are wearing out and are likely to need new ones before the end of the season. Make sure that each part of all the farm machinery is in good order, and have duplicates on hand of every part that is at all likely to give way before the end of the season. Sometimes a delay of half a day in the planting, cultivating or harvesting season means a loss of many dollars, so it is best to anticipate such delays by having repairs on hand. While overhauling the machinery it is a good plan to have a can of paint at hand and dab a little over every joint and bolt. It helps to keep water out of the joints and to prevent bolts from working loose and nuts from coming off.

LOOK AFTER THE GARDEN.—Then there is the garden to be looked after. It won't be long before seeds of tomato and cabbage should be planted. If one has time to look after a hotbed, of course that is the best place to start these early vegetables. I know of very few farmers, however, who can give a hotbed the attention it must have to grow good plants. When one has a multitude of chores to look after, stock to care for, milking to do, and the hundred and one things about a farm to attend to, and has no help, he has no time to monkey with a hotbed or an incubator. One can plant seeds in boxes and look after them, because he is right with them three times a day, and can water them in a few moments. Then the women of the household can care for them without difficulty, if they will. Most farmers will find it much easier and more satisfactory to grow a few early plants in window-boxes than in a hotbed. Make the box to fit the window, have it three inches deep, and put in two inches of soil. I sow the seed across the box in rows one and one half inches apart; then when the plants begin to crowd I draw a sharp knife midway between the rows, carefully lift each alternate row into another box, and fill the spaces thus made with fresh, rich soil. In this way one has only one box to care for until the plants are well up and the season far enough advanced to permit of the boxes being set outside most of the time. A shelf just outside the window at this time is a handy contrivance, can easily be put up, and the boxes may be quickly slipped outside or drawn in, according to the weather. Two of the chief points to success are to not try to grow too many plants in the box and to keep them growing until they are set out. Cabbages especially must not be stunted. The plants should grow steadily until set out, or they will not make good cabbages. Keep them out as much as possible, to prevent them from becoming long-legged. They will stand almost any but freezing weather. If one has the time to spare to take good care of a hotbed, it is a nice thing in which to grow plants. They can be grown quickly and satisfactorily. A professional gardener would say that a hotbed is easily enough cared for. So it is by a man in the business. A farmer, however, must not put too many irons in the fire at once.

THE SUMMIT OF THE "BOOM."—I note that a prominent railway man says that the summit of the present "boom," or good times, is reached, and there will be a halting, followed by a fall in prices, and some people will get squeezed. This may be the case, but the only people who will be squeezed by a fall in prices of stocks, real estate, etc., are those who have overstepped the bounds of moderation, and bought at prices that are higher than the real value. Speculators are liable to be squeezed at any time. So long, however, as farmers are doing well there will be a steady demand for goods, and the wheels of manufacture will be kept in motion. Buying has been the rage the past eight months, and I know some farmers who have gone in debt when they should have kept out. A farmer of my acquaintance bought "another eighty" not long ago; not because he needed it, but because the prevailing craze touched him. After he cooled off and calmly thought the matter over, thought of the additional burden he had imposed on himself when he was fairly well off, he quietly looked about and found a buyer to take it off his hands quick. Without a doubt he lost a little in the trade, but he decided that it was better to retrieve a blunder while he could without much loss. Those who have invested recklessly will very likely be nipped. I have heard many say that real estate will never drop to its old prices; that land is worth every cent of the high prices that have been paid for it. I heard that same tale years ago when prices went soaring, and I noticed that many who bought at that time had a hard time to pay for it afterward. It is best under all circumstances for one to keep his head, and not allow himself to be carried away by any speculative craze. If one does this there is no afterclap to fear. As an old capitalist once said, "The time to sell is when everybody wants to buy. You can buy it back again for less money when everybody wants to sell, which will soon happen."

All Over the Farm

FARM THEORY AND PRACTICE

THE AMATEUR FARMER.—Many professional and business men who know nothing about farming believe that they could make a great success of it if they had the opportunity. Some of them could do so—we have examples, and some that are remarkable—but the impression of many outsiders that they could get rich by farming is based on nothing more extensive than a small garden, a dozen hens, a fruit-tree or two, or some other little specialty that gets a lot of attention for which no charge is made, and in many instances the impression rests on no foundation at all except the too-prevalent idea that anybody can farm, and that those now farming are slack in their methods. The talk of these enthusiasts is wearisome.

I have been somewhat interested in the plans of a professional man who purposes buying twenty acres of land and devoting his time to fruit and poultry. He has been reading up the catalogues, and is surprised that fruit-growers will depend for profit upon some old varieties of apples and pears—varieties that do not have the very highest quality and that have some well-known faults—when the catalogues bring evidence that there are brand-new varieties that are much nearer perfection in quality, appearance and productiveness. He thinks that he sees how "dead easy" it would be for a wide-awake, progressive man like himself to have a monopoly of local markets, get fancy prices and make money while competitors rusted out their existence growing less desirable fruit.

BEARDLESS SPRING BARLEY, NEARLY RIPE, IN A YOUNG ORCHARD

When he had presented his plans it did seem cruel to try to puncture them; but I told him that a new variety of any tree fruit was rarely found, and that if he went into orcharding the only safe thing was to select two or three old varieties that orchardists of the locality had found their best. Further than this, he should not set any trees to-day unless he set a sufficient number to justify thorough spraying and cultivation. The San Jose scale is spreading everywhere, while other insects and fungi are cutting down quality in fruit. If he proposed growing something exceptionally fine on a few acres of land, and living from the income, it meant not only personal study, but personal work with spraying-mixtures, fertilizers and cultivators, and then he would likely find some old orchardists beating him in quality and quantity of fruit.

THE MATTER OF PROFIT.—The other day I had a talk with an old friend who sold over five thousand dollars' worth of apples, pears and potatoes last year from forty-two acres of land. These were the receipts at the farm, and certainly they are good.

"I am growing Ben Davis apples, Keiffer pears and American Giant potatoes," said he, "and none is very good to eat, but these varieties are paying me well enough."

Here comes up the old question, "How far are we justified in limiting consumption by furnishing low quality and fine appearance?" It is a fact that a less amount of fruit and vegetables is consumed when quality is poor; but, on the other hand, no individual can go into the business of teaching our cities to distrust outside appearance and to select high quality in less attractive form. City folk will not select a potato that is rough-netted and medium in size, no matter how high the quality, when they can get large, smooth, hollow and watery stuff. They will not take a medium-sized, yellow apple of delicious flavor when they can get a large, deep red, leathery, dry apple. They will not buy a rusty, small pear that is perfection in flavor when a great yellow pear of poor quality is on the market. It is the business of the farmer and fruit-grower to make a living in this world by furnishing the products demanded by the people, and just so long as appearance is made the test in purchasing, he must regard appearance first. It is very true that he limits consumption in this way—and it is an unfortunate condition of affairs—but the only remedy is increased intelligence on the part of consumers.

PREPARING GOODS FOR MARKET.—Many good men would like to know how far we should go in "putting the best foot forward" when making produce ready for market. It is a vexed question, for the simple reason that buyers expect a certain degree of skill in making products presentable and attractive, and they do not care to examine anything that is not attractive. If the peaches on the top of a basket are not well colored and of nice size, they reason that the bottom of the basket is probably worse, and they will not waste time considering the purchase. If the first layer of apples in the barrel is not neat and desirable, they reason that the shipper is a careless fellow, and that the center of the barrel would be poor stuff indeed. The practice of priming has become so common that a strictly honest man may feel that he is handicapped in the competition.

But there is, to a degree at least, a way out of the difficulty. It does not pay to sell worthless stuff. The first thing is to leave it out entirely. Neatness is always legitimate, and there can be evidence of the utmost care without misrepresentation. A neat package and good arrangement of vegetables or fruit are essential. The next thing possible is to get the confidence that a brand inspires. Men rarely put their names and addresses on produce dishonestly packed. The name inspires confidence. Another aid to the honest shipper is in stamping on the package the legend "Honestly packed." Those words, backed with a name, attract. Buyers will place a premium upon honesty in packing if they are assured of the honesty. A name can be built up in a local market or with a city commission-house if shipments are considerable.

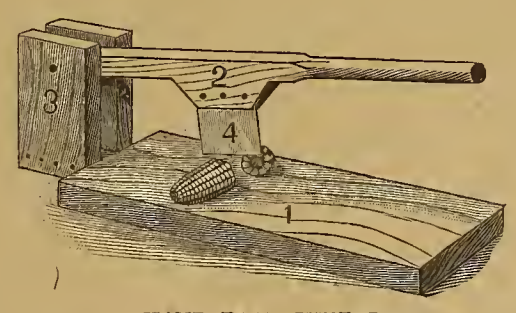
It is to our discredit as farmers that some men put musty grain in the bottom of the wagon-bed, and work the weedy hay into the center of the load. But human nature is about the same everywhere, and there is no reason that our class should come in for general condemnation because some do these things. In most occupations some men are tricky. The wholesome fact is that a tricky man soon gets a reputation for untrustworthiness, and cannot make sales as readily as those whose word is good. It remains true that honesty is the best policy. Neatness and attractiveness should be sought for all products upon the market, but deceit is not legitimate, and no market conditions can make it so. DAVID.

BETTER FARMING

Farming is a better business than it used to be. Not that it was not always an occupation of which to be proud. The trouble was we were not worthy of the vocation wherewith we were called. The point I wish to convey is that we have now come to see what it means to be good farmers. There will always be men who are above (or perhaps I ought to say below) their business; but the man who is farming because he feels that he loves the work, and must do it or die, is to-day the man the world looks up to and envies. You can now scarcely find a man in any line of business who does not dream of the time when he can own a little place in the country. There he fancies he can live with his ear close to the heart of Nature, rest well at night, make a little money, and bring his children up in the way they ought to go. To-day the farmer is the king of the world. Without him men in the cities would go about hungry, cold and in rags. And they know it, too. They no longer talk about farmers as "hayseeds;" they take off their hats to him when they meet him on the street; they like to stop and talk with him, for they know he is sound on most topics uppermost at the present time. The farmer is making some money, too. He is probably not making it as fast as some others do, but there are ten men now with a little nest-egg laid up in the bank where there was one a short time ago. That makes him more contented and happy. Any man is more so with a dollar in his pocket. So farming is taking its place with the best callings of the world. That is all right. We are entitled to that place; let's be sure we always are. E. L. VINCENT.

HAND FEED-CUTTER

This corn or feed cutter is intended for farmers who have only one or a few beeves to fatten. It can be put up in a few minutes. The knife is a piece of a scythe. The handle is hard wood. The base board should have a hard knot under the knife. A. J. WILLIARD.



HAND FEED-CUTTER

1, Base board, one by two and one half feet, of two-inch plank; 2, Hand Lever, two feet four inches long, of one-inch goods, with knife; 3, Blocks, to keep lever in position, six or eight inches wide; 4, Knife, five or six inches long.

ANNOUNCEMENT OF THE $100.00 NAME CONTEST

In the February 1st issue we will give the name the committee adopts for our New Prize Picture, and also the name and address of the $100 cash prize winner.

THE COW-PEA

Deservedly, there is possibly no crop in the older farming sections of the United States receiving more attention than the cow-pea. How to grow it and the various uses to which it can be put with profit invariably prove to be most lively topics when discussed at farmers' meetings.

Its sureness of a crop, its great root-foraging propensity, its leguminous character, its value as a soiling-crop, to mix with corn for silage or to be made into hay, and its remarkable ability as a soil-enricher, entitle it to the consideration of the thoughtful farmer. And considering all the valuable possibilities of this plant, some of which I have enumerated, it is somewhat surprising that it is not more universally made use of, in the North especially.

There is no doubt that it can be used to save many dollars in the feed and fertilizer bills of our farmers. On land that now lies idle and often bare for two or more months after harvest a crop of cow-peas will not only perform the generous office of adding considerable fertility to the land, but the equally important one of taking care of what is already there. For example, it is the practice on many of our Eastern farms to follow oats with wheat. As soon as the oats is harvested the land is plowed and allowed often to lie as it fell from the plow until time of seeding. The wastes from such unprotected land are too much for any business to be asked to stand. Now, if as fast as plowed the ground is rolled or dragged, and a bushel of cow-peas drilled in, the plants will be popping through the ground in a few days, and soon have the land completely covered, their roots taking care of the soil-fertility as it becomes available, and the tops carrying in the nitrogen from the air.

I like to postpone wheat-seeding until we have had a good frost, as a discouragement for the fly, and I thus give my cow-peas more time for growing. When I am ready to seed, I simply disk the ground until I have prepared my seed-bed, which operation reduces the pea-growth to a state not at all troublesome for the drill. The chopped-up peas make a splendid mulch for the young wheat-plants, and as the tops and roots of the peas decay the wheat enjoys a dainty meal.

I had the pleasure some time ago of listening to a farmers'-institute lecturer, who is a member of a force of lecturers (?) of a state where almost anything goes, discussing the merits of the cow-pea, and he gave it a usefulness that was entirely new to me, and for originality cannot be matched outside the institute force.

He said, in substance, that he had learned that the corn-plant was lacking in protein, and that the cow-pea had an abundance of it, and that the two could be so united as to practically produce the much-sought balanced ration. He had also learned that the corn-plant used considerable nitrogen, which it had to get from the soil; the cow-pea, on the other hand, obtained its nitrogen from the air, and in quantities in excess of its needs. So he conceived the idea of planting the two together, so that while the sturdy corn-plant held up and supported the twining vine, the latter returned the favor by gathering nitrogen from the air and giving it to the corn!

What a beautiful example of the compensating, balance-striking operations of Nature when assisted by a versatile institute man! W. F. MCSPARRAN.

BROOM-CORN

It is readily recalled that about two or three years ago, when a "corner" was run on broom-corn and the price forced to unheard-of heights, farmers in central Illinois, the greatest broom-corn-producing section of the world, were naturally not a little inclined to extend unduly their acreage in this plant. In fact, farmers in other sections thought they saw the ready road to wealth through the turning of their fields to the growing of brush for sweeping clean the houses of the country. Warnings were uttered by this journal and other safe counselors of the farmers against a reckless expansion in this direction, and those who heeded may well enough be thankful for the admonition and their compliance with it. A press dispatch on the probable acreage for next season from Mattoon, in the heart of the district, reads thus:

"If the present prices of broom-corn continue to prevail in central Illinois there is a reasonable prospect of there being a considerable reduction in the amount of land that will be given to the growth of brush henceforth."

The dispatch quotes a statistical exhibit from a farmer near that town, showing that from twenty acres of broom-corn he made a net profit that was quite inconsequential, while from an equal acreage of Indian corn he put aside a handsome sum. The dispatch concludes with the statement that the prominent dealers in broom-corn brush declare that better prices must be paid than at present in order to insure a continued production in that section.—Breeder's Gazette.

Gardening

By T. GREINER

Coal and Greenhouse.—For the first time in years my little greenhouse stands empty this winter. Cause? Scarcity of coal. I like lettuce and other green things in winter, but 'tis wise to forego pleasures that cost too much. When it is time to start plants—a little later on—the fires in the greenhouse heater will be kindled.

Hardy White Onion.—Many readers undoubtedly have tried Beaulieu's Hardy White onion. My first trial was a success. I had plenty of nice early green onions last spring grown from seed sown in open ground during August the year before. Last summer, sowing seed of this and other onions was put off until late in September. The outcome is dubious. I would like to have reports from our friends about this onion.

Growing Early Plants.—The reader in Dale, Ohio, or anybody else in any of the Northern states who desires to grow early plants, should at least try to have a hotbed. A cold-frame, if covered only with muslin instead of glass, is good enough to raise early plants late, especially such hardy ones as cabbage, onions, lettuce and celery, but to start any of them as early as a good gardener wants them the cold-frame is not sufficient. A foot or two of good fermenting horse-manure under the frame, and glass covering on it, will do the business.

Horse-radish.—The boys' crop for pocket-money—that is horse-radish. It wants deep, rich soil. The boys' most profitable way of selling it is in grated form, put up in cans or large-mouthed bottles. If you want to make a business of it you need a large-sized grater. Examine the graters kept in stock at your nearest hardware-stores, or inquire at large seed and implement stores. A reader desires to find a grater which will grate the horse-radish as fine as Hines' horse-radish, found in the stores, is grated. Who will tell us about the different styles of graters?

Wholesale and Retail.—We can raise a bushel of potatoes at an expense not exceeding twenty cents when we grow Rural New Yorker No. 2 or the Carmans in a ten-acre field, planting and digging with machinery, and doing all the other work in a business-like way. But a bushel of Early Ohios grown in a small garden-patch will cost us thirty cents or more to produce if we count our own labor at going rates. Wholesale production enables us to sell at wholesale prices with some profit. But if we have Early Ohios to sell from our limited production we want the highest retail price for them, and we usually get it.

For the Cabbage-worm.—A reader in Caswell County, North Carolina, says he would be very glad to know of a remedy for the green cabbage-worm. He wants none of Paris green. It is not necessary to use dangerous poisons for that enemy. My favorite remedy used to be buhach, the California insect-powder. This is entirely reliable, and if properly used it is not too expensive, either. It can be applied dry or wet, in either case in dilution. I have mixed it with four or five times its weight of flour or air-slaked lime, and then dusted it over the infected heads with powder-bellows, and found it plenty strong enough. Or you can put a small tablespoonful in a bucketful of water, and spray the plants with it. There are many other reliable remedies—kerosene emulsion, soot, tobacco-dust, hot soap-suds, etc.

Cauliflowers Under Cloth.—Covering a big garden-patch with cloth has not proved profitable the past season, either at Cornell University Experiment Station, or in a smaller way here on my home ground, or in any way elsewhere so far as I have reports. None of our common vegetables did materially better under cloth than in the open air, and some did materially worse. The only exception seemed to be the cauliflower. At Ithaca this vegetable has given a far better crop under the cloth house than where planted in open ground. The station people at Ithaca propose to make more extensive trials with cauliflowers under cloth next season. It should be remembered, however, that the summer was cool and wet, almost entirely without the usual long, torrid spells, and that the weather, therefore, was abnormally favorable for the continued growth of crisp lettuce, celery, etc., in open air, although the same conditions should have also favored the outdoor cauliflower crop. It only shows that cauliflowers are particularly partial to protection against direct rays of the sun.

Growing Mushrooms.—I don't want to brag over my success in growing mushrooms. There is something about this crop that I can't find out. I have followed the directions given by experts time and time again with greatest care and painstaking, and in many cases did not get a mushroom, although the spawn used was undoubtedly good. At other times I got a partial crop. Then again I had mushrooms come up in early spring all over the benches where a few scattering pieces of spawn had been carelessly planted in ordinary rich soil. In short, it is a crop that baffles all my skill and ingenuity. Yet I keep on trying. The "modus operandi" is about as follows: Select a cellar or a pit or cave or a spot under the greenhouse-benches where a steady temperature of forty-five to sixty degrees Fahrenheit can be maintained. Gather a lot of clear horse-droppings, possibly mixed with a few dead leaves or a small quantity of fibrous loam (old sods). Mix all thoroughly, and let come to a heat. Work it over two or three times. Then make the bed by packing and pounding this compost down solidly, say a foot or more deep, and let it come to a heat again. When the temperature is going down, and at about ninety degrees, insert pieces of spawn, say of walnut size, and ten inches apart each way, covering an inch deep with the manure mass. Spread an inch or two of garden loam over the bed, and later on cover with straw. If dry, moisten by spraying the surface (straw) with tepid water. In about six or eight weeks the mushrooms should begin to appear. Whether they will is another question.

Gardening Under Cover.—A party in Indiana sends out the "Gold Mine Hotbed." This is simply a muslin cover held by a ring of metal and two crossed-wire half-circles, and is meant as a protector for individual plants or hills. Of course, great and extravagant claims are made for the contrivance, and I believe it is good and useful if it can be put on the market cheap enough. It is not a hotbed in any sense. It will not result in a gain of weeks in the maturity of tomatoes or any other garden crops, except possibly lettuce. This last season I tried a roof of cheese-cloth spread over a triangular frame and placed over celery, etc., and find that celery, at least, and I believe lettuce, takes very kindly to such protection. The plants under it have grown much faster and larger. For celery and lettuce I have to guard more against overexposure to direct sunlight in hot and dry weather than against any other enemy. The muslin cover provides a partial shade, and the plants do well under it. Celery-blight has spread under the cheese-cloth, however, about as fast as on plants fully exposed. The season, however, was not particularly favorable for such tests, it being cool, cloudy or rainy most of the time. Altogether, the full effect of muslin or cheese-cloth covering for plants is a problem that needs further investigation. The experiment station at Cornell had last season quite a patch of ground covered with a house or tent of muslin. I have not yet been informed about the outcome.

Fruit-Growing

By S. B. GREEN

Rocky Mountain Cherry.—C. H. W., Conneautville, Pa. The Rocky Mountain Cherry is the form of the sand-cherry which grows in the Rocky Mountain region. It is very productive in that section, but the fruit is of inferior quality, being small, generally puckery, and has a very large pit. It is, in reality, more like a small plum than a cherry. It is exceedingly hardy, and grows about four feet high. It has not proven successful in the moist climate of the eastern section of the country.

Two-year-old Peach Seedlings.—W. S. W., Denton, Neb. In the case of peach seedlings it is customary to plant the pits in the spring, about eight inches apart, in rows four feet apart, and bud the seedlings the following August. The next spring cut them back, and the buds should make a growth of four or five feet, and should be transplanted the next year. This will make them two years old from the time the pits are planted. The best growers prefer to bud trees the first year from the pit. If your trees are two years old you will hardly be able to bud them close to the surface of the ground. If you feel that you must use these seedlings, by all means plant them next spring, and bud them next summer; but you have lost from one to two years by not budding them sooner.

The Use of Bordeaux Mixture.—K. K. P., Fairfield, Ill. There is no reason to expect that Bordeaux mixture will kill worms. It is intended primarily as a fungicide, and for the special purpose of destroying fungous diseases on trees and plants it is probably the best thing known. If you are using it to prevent scab of the fruit, or some other disease of that sort, you can add to it one pound of Paris green to each one hundred gallons, and then it will destroy the worms as well as the fungous diseases. If, however, you aim simply to kill the worms, and are not especially troubled with fungous diseases, then I would suggest that instead of Bordeaux mixture you use Paris green and water at the rate of one pound to one hundred and fifty gallons of water, and add to it one pound of quicklime. In order to satisfactorily destroy insects of this description, the work must begin as soon as they appear, for if you wait until they are well grown they will have scattered over the tree and be more difficult to destroy than when young, and then the tree will not be so much injured if the work is begun early.

MICHIGAN PEACH NOTES

Last season I had the pleasure of going through a number of the peach orchards near South Haven and Benton Harbor, Mich., with Prof. L. R. Taft, the inspector of orchards for Michigan and superintendent of the Farmers' Institute. I was much pleased to note the very healthy appearance of the orchards and the results which had come from the careful and systematic way in which they had suppressed the peach-yellows, which about twenty years ago destroyed nearly all the orchards in the vicinity of Benton Harbor. Experience shows that it is very short-sighted to trifle at all with this disease, but that rigid destruction of the infected trees as soon as detected will hold the disease in check.

The law for the prevention of this disease permits the inspection of the orchards, and requires the inspectors to put a "distinguishing mark" on each infected tree. In one district it was found that some of the more slovenly orchardists would fail to remove the diseased trees promptly, and these threatened the property of careful orchardists. Finally a big, strong man with much tact was appointed inspector, who made his distinguishing mark with an ax, so that there was nothing left to grow, and this method worked satisfactorily.

Recently a sensational article was sent out by a Chicago daily, to the effect that the Michigan peach orchards had been seriously injured by the peach-yellows, and it was thought that it might seriously curtail the Michigan peach crops of the future. In a drive of two days, in which we visited many orchards, we failed to find a single specimen of the true "little peach." This disease is not generally known by the inspectors of orchards in Michigan, as few of them have seen it. It is a very insidious disease, and trees infected with it should be destroyed promptly. Its chief symptoms seem to be yellowish foliage, somewhat wrinkled leaves, and fruit which remains small and green and never ripens; but all these points seem to be necessary in order to distinguish it, for it frequently happens that the leaves will assume the appearance described, due to the presence of too much water in the soil. Some inspectors have thought they found cases of the "little peach," but when examined by cutting open the fruit it showed plainly that the trouble was the result of the lack of pollination rather than the result of this disease, for when this disease occurs the pit is developed. In cases where the peaches fail to develop on account of lack of pollination, no pit is developed.

The peach-leaf curl has occasionally made serious inroads in this section, and at times destroyed nearly all the foliage in some orchards. It has been found, however, that it can be entirely prevented by spraying early in the spring with Bordeaux mixture, and especial emphasis has been put on spraying early, for the reason that experience seems to show that the best results follow spraying at least three weeks before the buds start. Although Bordeaux mixture is generally used for this disease, Professor Taft says that the copper-sulphate solution gives fully as good results. If this is the case, it seems as though the latter was the best to use, as it is much more easily applied than the former.

I saw here for the first time a large orchard infected with San Jose scale. This orchard consisted of about three thousand trees of peaches, plums, pears and apples, all of which were infected. The orchard had been taken in hand by the Michigan orchard inspectors, the hopelessly infected trees were to be cut out and burned, and the others were to be severely pruned and sprayed with the salt, sulphur and lime compound, which is considered the best remedy, and is applied when the trees are dormant. We saw here plain evidence of the fact that the Keiffer pear is much more exempt from attacks by San Jose scale than those of the old list, for where these trees were surrounded by trees which were infected with San Jose scale they had made a good growth, and it was difficult to find any scale on them.

It is only justice to the Michigan orchardists and nurserymen to say that all the larger orchardists and nurserymen are heartily in accord with the inspection law, and have their nurseries thoroughly inspected each year. This case of San Jose scale was an isolated one, and I did not see another infected tree. The trees for this orchard were bought in New Jersey about six years ago, and undoubtedly the disease was brought on in this way.

It has been found that the Japanese plums are liable to be infected with yellows the same as peaches, while our other varieties of plums are exempt from this disease.

I noted with much interest that the best orchardists thoroughly believe in thinning their fruit, and there seemed to be a very general agreement that it was difficult to get help that would thin sufficiently. When thinning is properly done the peaches should not be nearer than six inches. This will result in giving fully as many bushels to the tree as if all the fruit is left on, and is not nearly so hard on the trees. Orchards in which thinning is neglected are very liable to become weak and run out. Thorough cultivation of the soil until about the first of August, and then seeding to oats to hold the leaves and make a good ground cover, is also practised by many of the best orchardists. The varieties of peaches most commonly grown are Elberta, Kalamazoo and Golden Drop.

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Poultry-Raising

By P. H. JACOBS

EGGS AS FOOD

LIKE milk, an egg is complete food. If fed on eggs alone, young animals are furnished with all the necessary elements for the growing of bone, muscle, and all that goes to make a perfect animal of its kind. A hen may possibly lay two hundred eggs a year, but ought certainly to produce one hundred and twenty. Eight eggs will weigh a pound, and one hundred and twenty will weigh about fifteen pounds, at the cost of about one bushel of corn, worth on an average about fifty cents. At this rate the eggs cost, so far as food is concerned, about three and one third cents a pound, or four and sixteen hundredths cents a dozen. They usually sell for twelve to fifteen cents a dozen, and are better for food at that price than meat.

EGGS FOR HATCHING IN INCUBATORS

No two eggs are exactly alike, even when laid by one hen, as eggs from the same hen have failed to give a chick from every egg, the conditions being the same for all. Despite the various theories and methods suggested, no one has yet been able to know which egg will hatch and which will fail until after a certain period of incubation; and as to discerning the sex of the prospective chick within an egg, it is yet an impossibility, though many claim to be able to select such eggs. The temperature at which an egg is kept previous to hatching is also a factor to be considered. Eggs kept at a temperature of between forty and sixty-five degrees above zero may be retained much longer than when the temperature is higher; but they must also be turned, so as to change their positions, or the period of their profitable existence will be shortened. The longest period during which eggs have been kept and healthy chicks hatched is six weeks, they being stored in winter at about fifty degrees, turned three times a week, and placed in an incubator. They gave nearly as good results as fresh eggs. After the sixth week, and up to the eighth, they gradually failed. It is possible that but few experiments have been made in that direction, and it is also possible that another lot of eggs might give different results. As it is much easier to produce fresh eggs than to care for a number for so long a period as six weeks, but little inducement is offered to conduct such a test. The results secured from one lot cannot be easily duplicated with another, and it is this difficulty that has rendered theories and experiments with fowls and eggs so unreliable and uncertain.

A FLOCK OF WHITE PLYMOUTH ROCKS

PERSISTENT WORK ON LICE

Lice will often be found on the bodies of adults and chicks on close examination; in fact, lice will be found when least expected. For young chicks that are affected with large lice there is nothing better than a few drops of melted lard on the head of each one. It soon spreads and kills the lice. Many times have the admonitions to keep down lice been given in this paper, but it is a kind of work that is usually postponed until lice become numerous, and then there is perhaps ten times as much work to do as was required at the beginning. There are many substances that will destroy lice, but one application will not answer the purpose. The well-known kerosene emulsion, to which has been added a gill of carbolic acid to each gallon, will destroy lice, but to do the work properly the poultry-house should be drenched with it, both inside and outside, at least twice a week for a month, so as to destroy those hatched out at different times. If this is done, all lice will be cleared out and much work saved later on, while the hens will also be more comfortable. The numerous lice-killers advertised very seldom fail to destroy the pests.

SHELTER FROM WINDS

The cold winds of winter prevent fowls from remaining outside, hence windbreaks are always an advantage. Some use boards, but a poultry-yard should be surrounded by a thick hedge, or a hedge may be grown on the north and west sides. American arbor-vitæ is excellent for the purpose, and two lines of hedge—one in the rear of the other—will greatly assist in protecting against the cold winds. Sheltered fowls require less food for the support of the body than those that may be exposed, and it will be saving in the cost of food to provide windbreaks. An excellent mode is to place corn-stalks on the outside of the fence, sufficiently far from it to prevent interference from the flock, as corn-stalks will provide an effectual wind-break. It is also more advantageous to use the stalks for such a purpose than to permit them to go to waste in the fields after they have been shocked.

INQUIRIES ANSWERED

MITES.—M. H., Wykoff, Minn., wishes to know "what to do for mites in his poultry-house." Spray with the kerosene emulsion twice a day, adding a gill of crude carbolic acid to each quart of kerosene used.

SELLING BROILERS.—J. L. E., Wheaton, Ill., desires to know "when broilers bring the highest prices." Usually April and May are the months when prices are highest in New York, and probably a little later in Chicago.

ALLOWANCE FOR A HEN.—R. S., Norristown, Pa., asks "how much food is the standard allowance for a hen one year?" As fowls differ greatly, and as the food is usually varied, no fixed allowance can be adopted. It is claimed that five pecks of corn, or its equivalent, is the standard for a year, but some hens will consume more and others less.

FEEDING GRAINS.—G. S. N., Rochester, Pa., requests information as to "whether the various grains should be given together or each kind on certain days." Either method may answer. It would be well to observe the fowls, and if they refuse any kind it should be withheld altogether for a short while. Wheat, oats, corn and buckwheat should be used.

OVERFEEDING.—Mrs. H. W. T., Allen, Neb., states that "her fowls and chicks have rattling in the throat. She feeds milk and grain, and the fowls have the run of the farm, and are fat." While rattling in the throat is due to drafts on the fowls at night, yet the birds most liable to it are those that are excessively fat. The remedy is to avoid drafts of whatever source and to reduce the amount of food.

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and several smaller ones

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Live Stock and Dairy

THE PROTECTION OF CATTLE AGAINST TUBERCULOSIS BY VACCINATION

Some experiments on the vaccination of cattle against tuberculosis have recently been published by Dr. Leonard Pearson, state veterinarian of Pennsylvania, and Dr. S. H. Gilliland. These experiments, conducted at the Veterinary School of the University of Pennsylvania, had the support of the State Live Stock Sanitary Board. The work has been in progress more than two years, thus antedating all other work along this line, for the German investigations of von Behring did not begin until July, 1901. No other investigations of this sort have been reported in any other country than in the United States and Germany. The process used was to inject into the vein of the animal to be protected a small quantity of a suspension of tubercle-bacilli non-virulent for cattle. This procedure, called vaccination, may be repeated several times with gradually ascending quantities. The immediate effect is to produce a passing fever following each injection, which does not annoy the animal enough to cause it to lose a single meal. The general health is not disturbed by the process of vaccination. When the series of vaccinations was completed the animal had an astonishingly high degree of immunity from tuberculosis. In the last experiments completed four young cattle were used. Two of these were vaccinated last March. All four were inoculated in July by injecting into the windpipe a quantity of culture of virulent tubercle-bacilli. A large quantity was introduced, and each of the four animals received exactly the same treatment. These animals were killed in October. It was found that the cattle that had not been vaccinated were extensively tubercular, showing alterations of this disease in the windpipe, lungs, throat and intestinal glands, while the two vaccinated animals inoculated at the same time, from the same material and in the same way were free from tubercular infection and were sound.

Doctor Pearson considers that this principle of immunization as applied to vaccination against tuberculosis of cattle is proven, and it now remains only to work out the details of the method. This important work is being continued on a larger scale for the purpose of ascertaining the simplest and shortest practicable method of vaccination.

It is not yet known how long the immunity will last nor what the ultimate effect upon the animal will be. So far, however, as the few experiments here and in Germany show, no fear need be anticipated of unfavorable results in these particulars. What is needed now is the painstaking use of the method on a few tubercular herds kept under careful and continuous observation. A scrupulously careful trial on a limited scale under proper conditions will do more to furnish the information needed to answer the few remaining questions upon this discovery than any amount of general use under less careful supervision. In the estimation of the investigators it would be premature to apply this vaccination to herds until such experiments are completed. An effort will be made to secure state aid for experiments on a scale large enough to solve this important problem.

PACKING THE FLEECE

When the fleece is shorn it should be spread on a clean floor, the shorn side down. All adherent straws, if any, should be removed from it; also all loose locks and tags. It will be better to sell the latter by themselves. The head, tail and flanks of the fleece are then turned in. The flanks—that is, the wool on the legs, flanks and a narrow strip along the belly—should be turned in far enough to just about meet the center. Then the fleece is neatly rolled, and firmly tied both ways with cord used for the purpose. When wool is thus put up it has a neat look, not unlike that of a lady's muff, but it is larger.—Wool Markets and Sheep.

THE NEW YORK STATE DAIRYMEN'S ASSOCIATION

ABSTRACTS OF ADDRESSES AT THE TWENTY-SIXTH ANNUAL CONVENTION AT JAMESTOWN

Agriculture of the Future.—Jared VanWagenen reviewed the history of agriculture in the state of New York and showed the great progress which has been made in the last fifty years. The great inventions of the last few years justify us in looking for great developments yet to come in agriculture of the future. There must be better education of the agricultural classes and more thorough training for special kinds of work; then with the increasing facilities of transportation will come great prosperity. With higher civilization the demands for the finer products of the farm and garden will increase. Let us work for the education that trains us for the best work, and keep in mind that prosperity will not be permanent unless we base our efforts on the principles of truth and righteousness.

Improvement of the Dairy-cow.—Prof. I. P. Roberts, dean of the Agricultural College of Cornell University, said every cow in New York is just as good as she can be, considering her breeding, food and environment. Yet the saddest fact we have is the low production of the average dairy-cow. There are too many nondescripts in the dairy herds. The improvement of these cows, by more thorough blood in them, must begin by educating men to breed them. Our breeders have failed to meet the demands of the dairymen. They are selling us sires from dams that are of the dairy type and are of low milk or butter production. We need to breed desirable characteristics into the dairy-cow, then to put her in the best environment possible, and feed her food that will make milk. The greater the knowledge of the dairyman, the greater will be the profits from his cows. Let us provide better food for the dairyman's mind, then will come the improvement of the dairy-cow.

Ideal Types of the Dairy-cow.—O. C. Gregg told how he had failed to improve his cows for dairy purposes by purchasing sires of breeders of thoroughbred stock, and he was obliged to study the subject of breeding for a higher production of milk and butter. He learned how Nature's plan is to evolve new types by change of environment and demands on the organs of animals. He profited by the study of the science of breeding, and began to breed along the lines of the maternal development of the cow with the form of the ideal cow in his mind. First, he said, the dairy-cow should be open and loose-ribbed, to allow for the development of the nutritive organs. This is in direct opposition to the beef-animal, which is close-ribbed. The cow should have thin neck and shoulders, small horns, as showing the eliminating side of the animal and developing the maternal side. The cow should have a large "middle piece," or deep body, showing large capacity for food. The sire at the head of the herd should be of the dairy type.

Prosperity of the Dairy Farmer.—John Gould, of Ohio, told what the American farmer has accomplished, and how much more prosperous he is than the farmer of any other nation. He is better educated, owns more wealth, enjoys better homes and privileges, uses more labor-saving machines and has more leisure. On this farm of Uncle Sam's a crop was raised last year that amounted to nine billion dollars. This goes to all parts of the world. The American farms and buildings are worth more than twenty billion dollars, and this land is "aggravated" by four billion dollars' worth of agricultural machinery. No industry has made greater growth than dairy-farming. He humorously accounted for the falling off of the exports of butter by the fact that we are making it so much better that we can eat it ourselves.

Improvements and Control of Dairy Products.—T. G. Warner said the ideal

Live Stock and Dairy

system of marketing was that which distributes the produce from the producer to the consumer with the least cost. There is an evolution at work which is slowly and naturally bettering our methods of marketing. The difficulties and evils cannot be eliminated at once, but by the working-out of natural economic laws. Better transportation and cold-storage facilities are securing more uniformity in prices, so the producer gets a more dependable and stable market. The consumer is being brought into a more direct contact with the producer. Improvement of quality and coöperation of producers are the main factors in the improvement of the dairyman's market.

W. H. JENKINS.

WORLD BEATER

Chester White boar, four years old; weight, 765 pounds. A winner of blue ribbons and championships at the state fairs on the western circuit and at International Stock Show. Owned by Dorsey Brothers.

TRAINING THE HORSE

The following, taken from a paper written by a friend who has had great success in the breeding and training of road-horses, calls attention to truths too often ignored by the owners of horses:

"The horse's value depends greatly upon his education, which should commence with halter-breaking, and securing his confidence before or at weaning-time, and continued whenever opportunity offers, since, as with children, colts are more readily trained while young, and their earliest impressions are strongest and most lasting, their characters being often affected by the characters of those who handle them. That many of the finer-bred and most valuable youngsters are annually soured and ruined by abuse and brutality cannot be denied; and it has been most truthfully said that 'there are more balky drivers than balky horses,' and we believe it can be truthfully added that 'there are more vicious men than vicious horses,' and it is also an incontrovertible truth that the most cowardly men are generally the most brutal and overbearing, and are the most liberal users of the lash so long as a horse is safely within their control.

"The first requisite in handling a horse is the ability to secure his confidence. Once teach him you are his friend, that you are not afraid of him, and so long as you do not abuse his confidence the victory is yours. On the other hand, let him once know you fear him, then destroy his confidence in you, and the sooner you part company for good the better for both. Nothing will inspire courage and good manners in a frightened horse so quickly as the calm, encouraging voice of a level-headed driver in whom he has confidence, and nothing will more surely intensify his terror than the voice of a thoroughly frightened driver; hence, brutal cowards should never have charge of young horses, or in fact older ones.

"The increasing necessity of having horses thoroughly educated for city use, by owners who expect to intrust their own lives and the lives of their families behind them, will compel breeders who obtain the least prices to pay more attention than formerly to the education of young horses, such as teaching them to stand quietly in any place or to face any reasonable danger."

DAVID.

THE COW AND HER STABLING

A number of the best agricultural publications are now devoting considerable space to the subject of continuous winter stabling of dairy-cows. The subject certainly needs as thorough ventilation as many stables where our milk-makers have to spend their winter days and nights.

Those dairymen arguing for continuous winter stabling who make the strongest cases in favor of it unanimously agree that the stable must be made comfortable and hygienic in the matters of bedding, flooring, fastening and cleansing, also in air-space and ventilation. The ventilation especially is an indispensable requirement. Fresh air is admitted direct from outdoors into the warmer, overhead stratum, and the exits for foul air are provided a few inches above the floor. The chill must also be taken from the drinking-water for the continuously stabled cows to obtain the best results. Then, it is contended, the heavily producing dairy-animal can profitably and healthfully remain in her stall for sixteen to twenty weeks without once seeing the outside walls of her stable without physical injury to herself or offspring. The claim is made that no additional exercise is needed further than that afforded by her digestive organs in changing the crude rations into a finished dairy product.

These arguments are well made and sound plausible, but conclusions based on a few years' trial, or even on a dozen, of continuous winter stabling are not to be counted as conclusive evidence that our dairy-cows—the perpetuators of our future herds—can be kept with no exercise other than stomach gymnastics to insure muscular development and vitality for coming generations.

In this connection it is pertinent to say that statistics of recent examinations of intended importations of dairy-stock have shown a dangerous and increasing amount of stock infected with tuberculosis, the per cent of infected stock ranging from twenty-three to twenty-nine per cent, according to breed. This is strong evidence that the close confinement and high-pressure methods of feeding that are quite generally practised by European dairymen has resulted in a lowering of vitality, with a consequent lessened resistance to disease.

The writer's belief and policy is to provide the best stable accommodations, both as to comfort and healthfulness, then require systematic exercise daily of from fifteen to thirty minutes' duration in Nature's own untainted outdoor air. By this practice the animal's muscles and joints are kept supple and strong, and its lungs get such an air-bath and inflation as cannot be secured in continuous stabling. Cows, like sedentary human workers, often require an incentive in cold weather to take exercise. This should be furnished in the shape of a careful attendant who will keep them steadily and quietly moving while out, and house them promptly when their constitutional is over.

B. F. W. THORPE.

COW CATCHERS

When you are considering the construction of the best ration for your cow, consider first the taste of the cow, and next her construction, for there is no question that the cow inclined to lay on bodily fat will require more protein for her best milk-making than the angular dairy-cow. We all quote "Every one to his taste," as the old man said who kissed his cow. That only shows the taste of the man, and not of the cow. She might object to osculation, and the cow's taste must be considered.

Let the cow be fed promptly at regular times, in the same order and so far as possible by the same feeder. Feeding should be done as quickly as possible, only insuring thoroughness. When the cow is excited or expectant she is using potential energy from milk-making.

The successful dairyman is the one who is in it to stay in—his farm, buildings, dairy and himself properly equipped for the work. One essential for the proper equipment of the dairy is uniformity of individuals. This can be had only by raising one's own cows.

CHARMER GIRL

Berkshire sow, yearling; weight, 500 pounds. Sweepstakes at the St. Louis Fair. Owned by Etzler & Moses.

Many of the cows of commerce are discards from herds that wise dairymen are breeding up. They have been skilful feeders and tenders, and all their cows have been given a chance. The rejections have been weighed in the balance, and not wanted. If not good enough for them, why for you?

If the cow kicks, try kindness—get into her confidence. Try to understand her. She may have some just cause for kicking, and be thus expressing her intelligence. You may be the cause. Absolve yourself before you condemn her.

W. F. MCSPARRAN.

Fleming's 3 are free if they fail.

Fistula & Poll Evil

CURED IN 2 WEEKS.

Fifteen to 30 days is all the time required to cure with Fleming's Fistula and Poll Evil Cure. Other remedies require months and often fail. This has never yet failed.

Doom of Lump Jaw

You need never lose an animal or forfeit a cent of its value by reason of lump jaw. Fleming's Lump Jaw Cure takes off every vestige of the lump. Seldom leaves a scar. Easy to use and harmless.

Spavin Cured In 45 Minutes.

One treatment is usually all that is required to take off any spavin with Fleming's Spavin Cure. No cost if it fails.

Write today for circulars on any or all the above remedies. State which circulars are wanted.

FLEMING BROS., Chemists, 224 Union Stock Yards, - Chicago, Ill.

ASTONISHING VALUES IN AGRICULTURAL IMPLEMENTS.

$4.95 for best Endgate Broadcast Seeder made, suitable for sowing broadcast all kinds of grains and grass seed. Guaranteed the best endgate seeder made.

$7.50 for a High Grade FANNING MILL, complete with grain outfit, guaranteed superior to fanning mills sold by others at $10.00 to $12.00.

$4.34 buys the best Round End One Hole Corn Sheller made, complete with fan and feed table, capacity, 10 to 15 bushels per hour; guaranteed a better sheller than you can buy elsewhere for $6.00 to $8.00.

$9.35 For Two-Hole Square Frame Corn Sheller, with cob carrier, feed table, crank and pulley, better than others sell at $14.00 to $16.00.

$9.35 For Best No. 8 Feed Cutter made, with two 8½-inch knives, the kind others sell at $12.00 to $18.00. No. 10 Cutter, with two 10½-inch knives, $12.50, other houses ask $18.00 to $22.00.

$5.90 For our No. 5 FEED CUTTER, with 11½-inch knife; SAME MACHINE SOLD BY OTHERS AT $7.00 TO $10.00.

$12.95 For Best Galvanized Steel Windmill Made.

$14.20 FOR BEST DISC HARROW MADE.

$17.25 FOR BEST Two-Horse Corn Planter Made.

$9.95 FOR BEST STEEL FRAME, WOOD BEAM, Four-Shovel Tongueless Cultivator Made.

$4.25 For Best Steel Frame U Bar Lever Harrow made complete with draw bar and runner teeth.

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When the dairy alphabet is written, the letter S will stand for three things—Simplicity, Satisfaction, Sharples. They all mean the same thing:

Sharples

Tubular Dairy Separators.

The simple separator—free from complicated parts—easy to turn and easy to clean.

The satisfactory separators—getting more cream of better quality—yielding a 6% greater profit on your investment than any other separator.

Our Business Dairying Book No. 112 explains how and why, but our separator tells its own story better than words can.

You may try it and then decide whether you want it or not.

Sharples Co., Chicago, Ills. P. M. Sharples, West Chester, Pa.

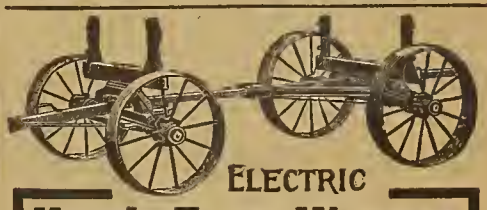
For All Lame Horses

whether they have spavins, ringbones splints, curbs, or other forms of bony enlargement, use

KENDALL'S SPAVIN CURE

Cures without a blemish as it does not blister. As a liniment for family use, it has no equal. Price $1, Six for $5. Ask your druggist for Kendall's Spavin Cure, also "A Treatise on the Horse," the book free, or address

DR. B. J. KENDALL CO., ENOSBURG FALLS, VT.



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Handy Farm Wagons

make the work easier for both the man and team. The tires being wide they do not cut into the ground; the labor of loading is reduced many times, because of the short lift. They are equipped with our famous Electric Steel Wheels, either straight or stagger spokes. Wheels any height from 24 to 60 inches. White hickory axles, steel hounds. Guaranteed to carry 4000 lbs. Why not get started right by putting in one of these wagons. We make our steel wheels to fit any wagon. Write for the catalog. It is free.

ELECTRIC WHEEL CO., BOX 96, QUINCY, ILL.

BARNS of plank save timber and cash. Best, cheapest, strongest. 6,000 in 44 States. Book for stamp. SHAWVER BROTHERS, Bellefontaine, Ohio.

FLORAL BUTTERFLY PLANT

No plant possesses so many good points as do these two glorious new Commelinas. Of graceful trailing habit, superb for carpet bedding or for hanging pots. *In pots they bloom every day in the year.* In the garden from May until frost, showing *daily* scores of large winged butterfly-like blossoms. Color (No. 1) the most beautiful blue to be found in any flower. A shade so exquisitely lovely as to baffle description. Thrives in sun or shade, wet or dry, rich or poor soil; as easily raised as a weed from seed or cuttings, grows rapidly, flowers at once, and propagates so easily that plants are very cheap. Blooms in 50 days from seed.

No. 1—Exquisite Blue, like tropical Butterflies.
No. 2—Rosy Pink, in other respects like No. 1.
Strong plants for blooming at once, by mail guaranteed to grow, 20c each; the 2 for 30c, 5 for 60c.
Seed of both colors mixed, 25 cts. per packet.

FREE OUR GREAT CATALOGUE of Flower and Vegetable Seeds, Bulbs, Plants and Rare New Fruits, Profusely Illustrated, Large Colored Plates—136 pages. Do not miss our great Novelties, Emperor Asparagus (crop in 11 months from seed), Early Lima, Perpetual Rhubarb, Pineapple Onion, Climbing Currant and Blackberry, Everblooming Wistaria, Tree, and Double Lilacs, etc. We have the finest Asters, Pansies, Peas, Stocks, Verbenas, Geraniums, Azaleas, Roses, Palms, Ferns, Begonias, Gloxinias, Violets, Phloxes, Gladiolus, Cannas, Dahlias, Lilies, Caladiums, Shrubs, Vines, New Fruits, and all Vegetables.

JOHN LEWIS CHILDS, Floral Park, N. Y.

At Tree Agents Prices?

Why not save half your money by buying direct of us, the growers of trees, plants and vines? We sell Fruit and Ornamental Trees, Shrubs, Roses, Bulbs and Small Fruit plants, at one-half agents' prices. Correspondence solicited. Illustrated catalogue free. Established 25 years. 300 acres. 750,000 Apple, Peach and Cherry Trees for sale. Secrets of Fruit Growing, 150 photos, mailed for 10 cents.

GREEN'S NURSERY CO., Rochester, N. Y.

The Maule Seed Book

for 1903 is free to all interested in gardening who mention this paper. If you want an up-to-date garden you ought to have it, the best seed catalogue I have ever published. The first edition costs over $37,000. Address simply

MAULE, Philadelphia.

GOOD SEEDS CHEAP

Best in the world

From 1c. a p'k'g, & up. A lot free with every order. Great Big Catalogue FREE to all. Picture of all varieties. Send for big catalogue

R. H. SHUMWAY ROCKFORD, ILL.

GRAPE VINES

Currants, Gooseberries, Blackberries, Raspberries, Strawberries. Price List FREE. Send 2c stamp for illustrated descriptive catalog.

T. S. HUBBARD CO. Fredonia, N. Y.

BEST SMALL FRUITS. Standard and improved varieties of Raspberries, Blackberries, Gooseberries, Currants, Grapes, Strawberries, etc. Every plant grown and guaranteed by me. Ship only clean, vigorous, well rooted, fresh dug plants that give results. Write for late catalog.

Allen L. Wood, Wholesale Grower, Rochester, N. Y.

450,000 TREES

200 varieties. Also Grapes, Small Fruits etc. best rooted stock. Genuine, cheap. 2 sample currants mailed for 10c. Desc. price list free. LEWIS ROESCH, Fredonia, N. Y.

TREES. PLANTS. VINES. 150 acres of them. All kinds and varieties. Smooth, clean, strong-rooted stock at lowest prices. 33 years experience. Special terms to club makers. New catalog free. Write for it before you forget it.

GEO. A. SWEET NURSERY CO., Box 1863 Dansville, New York.

If You Have $100

or more to invest at 6 per cent interest, paid semi-annually in gold, safe, no speculation, bank references, Address IRA T. SWARTZ & CO., Piqua, Ohio

The Family Physician

By ROBERT B. HOUSE, M.D.

BREATHE DEEPLY

When very chilly from exposure, breathe deeply and rapidly, and the increase in bodily warmth will be surprising.

COFFEE-HEART

Medical examiners of life-insurance societies have added the term "coffee-heart" to their regular classification of the functional derangements of that organ. Its effect is in shortening the long beat of the heart. Coffee topers, they say, are plentiful, and are as much tied to their cups as the whisky toper. The effect of the coffee upon the heart is more lasting, and consequently worse, than that of liquor.—Dietetic and Hygienic Gazette.

CAN REFUSE TO ATTEND A CASE, BUT CANNOT ABANDON ONE

It is a common mistake to suppose that a physician cannot legally refuse to attend a case to which he is summoned. His knowledge is entirely his own, to use or not, with or without compensation, as he chooses. When once in charge of a case, however, he cannot leave it without due and timely notice, sufficient for the securance of another doctor. To abandon a patient without this precaution is to be liable for ensuing damages.

FAT BACON IN NOSE-BLEED

I desire to give a very simple and easy method for controlling nose-bleed that may prove valuable to many persons, especially those living in the country, where physicians are not so easily procured as in the cities. Take a piece of fat bacon about two or two and one half inches in length and of sufficient size, cut it the proper shape, and as large as can be easily forced into the nostril, apply by pressing into the bleeding nostril, and let it remain several hours. It controls the hemorrhage and is not uncomfortable.

GOT HIS SHARE

"I am sorry, doctor, you were not able to attend the church supper last night; it would have done you good to be there."

"It has already done me good, madam. I have just prescribed for three of the participants of that same function."

COLD FEET AND INDIGESTION

Coldness of feet and limbs is almost invariably an evidence of indigestion. The coldness is due not to the weakness of the heart or feebleness of circulation, as is generally supposed, but to the contraction of the small arteries, preventing blood from entering the parts. There is generally an irritation of the abdominal sympathetic-nerve centers which control the circulation of the lower extremities. This difficulty is not to be removed by exercise or by any special application to the limbs, but by removal of the causes of irritation. This may be a prolapsed stomach or chronic indigestion. Hot and cold foot-baths are valuable. These act not simply on the feet and limbs, but by reflex action affect beneficially the abdominal sympathetic centers, which are in a diseased condition.

Rubbing of the feet and legs is also an excellent method of overcoming spasm of the blood-vessels, thus preserving the normal circulation. The rubbing should be from the feet toward the body. The surface should be well lubricated with vaseline. To avoid irritation of the skin, care should also be taken to clothe the limbs very warmly. In many cases this is necessary even in the summer season.—Good Health.

The Family Lawyer

By JUDGE WM. M. ROCKEL

Legal inquiries of general interest from our regular subscribers will be answered in this department free of charge. Querists desiring an immediate answer by mail should remit one dollar, addressed "Law Department," this office.

Making a Will, etc.—B., Washington, writes: "A man dies, and by will leaves everything to a lone daughter, except one third interest for life to his wife; but a codicil was made a year after the will, giving the wife full control and the daughter nothing. Codicil was made out by the executor that was appointed by the will, and also signed by him as witness. The other witness is the son of a former wife. Can the daughter break the codicil and get her share? Has the widow to take the will through probate before buying or selling? When a man dies without a will or children, has she to go through probate, and if she does not will it be so many years or forever that nobody can make her trouble? What is the wife's share in this state, and could she get more?" If the father was of sound mind and not under any restraint when he executed the codicil it would be binding, and the executor can sign the will as a witness, his interest not being such as would preclude him. The fact that the son of a wife signed it would not invalidate it. The daughter cannot for that reason break the will. A will must be probated before it becomes effective, and no number of years would dispense with such requirement. If the will was not probated, the heirs and widow would take as the law provides, and as to the third party, they might after a few years convey a good title; but any interested party could at any time have the will probated, and compel parties to abide by such will. In your state, if the husband died leaving a surviving wife and only one child, the property goes in equal shares to each. If there is more than one child, one third goes to the wife and the remainder in equal shares to his children.

Appointment of Administrator, etc.—J. B. inquires: "If a man dies without leaving a will, having real estate and personal property and small bank-accounts, what part of his property will the wife hold? Will the household furniture be the wife's, to do with as she likes? How soon after the funeral must an administrator be appointed, and by whom? There are three children, one only fourteen years old. Can the estate be settled before she is eighteen?" The above inquirer does not give the state of her residence, and therefore the answer will be made in reference to the Ohio laws, which provide that certain household furniture may be set apart to the widow and her children by the appraisers of the estate, and that a year's allowance for support may be made. An administrator will probably need to be appointed, for no one can settle with the bank legally but an administrator, and it should be done reasonably soon after the funeral. If the personal property amounts to but little, the probabilities are that the same will be set off to the widow. The estate could be settled within the customary eighteen months, although the youngest child would not be of age for several years. If anything was left for distribution after the debts were paid, and the amount set off to the widow given her, a guardian would be required.

Right to Close a Road.—M. E. G., Minnesota, asks as to the "right to close a road, etc., which he says was put through without his knowledge or consent." If he was not properly notified, it would be very questionable whether he would be liable for damages in closing up the road. The better way to proceed would be to bring an action in court.

GREAT CROPS OF STRAWBERRIES AND HOW TO GROW THEM

The best book on strawberry growing ever written. It tells how to grow the biggest crops of big berries ever produced. The book is a treatise on **Plant Physiology,** and explains how to make plants bear **Big Berries and Lots of Them.** The only thoroughbred, scientifically grown **Strawberry Plants** to be had for spring planting. One of them is worth a dozen common scrub plants. They grow **BIG RED BERRIES.** The book is sent free to all readers of the Farm and Fireside. Send your address to

R. M. KELLOGG, Three Rivers, Mich.

OUR SEEDS

Fruit and Ornamental Trees, Etc., have been the standard of excellence for nearly half a century. We send by mail postpaid, **Seeds, Plants, Roses, Bulbs, Vines** and **Small Trees** and guarantee safe arrival and satisfaction, larger by express or freight. Direct deal will insure you the best and save you money. Try us. Your address on a postal will bring you our elegant 168 page catalogue free. 49 years, 44 greenhouses, 1,000 acres.

THE STORRS & HARRISON CO., Box 163, PAINESVILLE, OHIO.

THE LIGHTNING SEED SOWER

Guaranteed to Sow 60 Acres per Day of Clover, Timothy, Millet, Flax, etc. Will be sent to any Post Office on receipt of $1.25. If not satisfactory, money refunded. Circulars free. AGENTS WANTED.

W. J. BUSS, 17 Day St., Golden, Ill.

We recommend the Lightning Seed Sower the best sower made. They forced all others out of the market here. Farmers use only the Lightning. It will do all that is claimed for it.

H. H. EMMINGA, Banker, Grain and Seeds.
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TENHAEFF & REYNOLDS, Stock Dealers.
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SPRAYING

Our line of sprayers and appliances fits every man's needs. Hand, Knapsack, Bucket, Field, Barrel, and Power sprayers, twenty styles. Best nozzles made, attachments, formulas, etc. Select the useful and reliable. Catalog free

THE DEMING CO., Salem, Ohio.
Western agents, Henion & Hubbell, Chicago, Ill.

50c 10 Packages of Warranted Vegetable Seeds For 16c

Send us 16c and we will send you postpaid one package each of the following: E. B. Turnip Beet, Rosy Gem Radish, Prize Head Lettuce, E. J. Wakefield Late Flat Dutch Cabbage, H. C. Parsnip, Crookneck Squash, Sweet German Turnip, Beauty Tomato, and Rocky Ford Muskmelon. FREE—Our illustrated catalogue telling how to get the best seeds that grow for 3c a package.

FORREST SEED CO., 26 Main Street, Cortland, N. Y.

The Hieley Peach.

Hardy stock and very early. Fruit large, rich and creamy white with a sun kissed blush. One of the very best varieties. Free catalog shows Mamie Ross, Elberta and many other choice varieties. Write for it.

Harrison's Nurseries, Box 28, Berlin, Md.

WEEDING A GARDEN

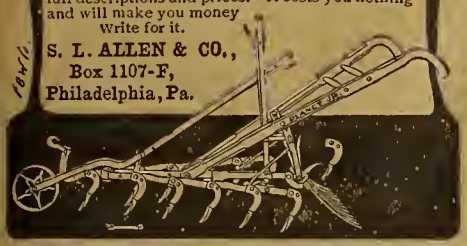
by hand is the hardest kind of back breaking work. It makes one light headed, too; to stoop over so much, and the sun just seems to bore a hole into the back. The better way is not to have any weeds to pull. Mix a few turnip seeds with all others in drilling. These will come up quickly and show where the rows are. That gives you a chance to work the garden before the plants are up. Right here is the place to start in with our **"Planet Jr." No. 12 Wheel Hoe** and keep it going until after the harvest. It is fitted with a lot of attachments for working both sides of the row or middles; hills up and opens furrows and cultivates wide or narrow rows. Effectually breaks up crusts after rains and saves all soil moisture by a mulch of earth. Moves every particle of soil so

Planet Jr.

thoroughly that a weed doesn't get a chance to start. Then, too, you can do more work and do it better than six men can with common hoes.

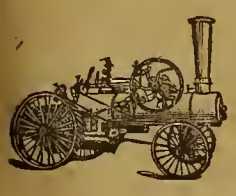
If you need a horse tool consider the advantages of the one shown below. It is but one of our fifty seeding and cultivating implements, including plain and combined Seed Sowers, Wheel Hoes, Hand Cultivators, Walking Cultivators and One and Two Horse Riding Cultivators, Special Sugar Beet Tools, etc. Our new 1903 catalogue is very readable. It contains over 100 illustrations with full descriptions and prices. It costs you nothing and will make you money Write for it.

S. L. ALLEN & CO., Box 1107-F, Philadelphia, Pa.



A CRUSADE

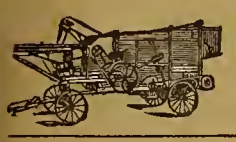
against grain-wasting inaugurated by The Aultman & Taylor Machinery Co.



The New Century Leads It.

Every Thresherman Should Join It.

Aultman & Taylor's catalogue contains full particulars—it is free. Write



The Aultman & Taylor Machinery Co.
MANSFIELD, OHIO,
for it, and mention this paper.

Farm Wagon only $21.95

In order to introduce their Low Metal Wheels with Wide Tires, the Empire Manufacturing Company, Quincy, Ill., have placed upon the market a Farmer's Handy Wagon that is only 25 inches high, fitted with 24 and 30 inch wheels with 4-inch tire, and sold for only $21.95.

This wagon is made of the best material throughout, and really costs but a trifle more than a set of new wheels, and fully guaranteed for one year. Catalogue giving a full description will be mailed upon application by the Empire Manufacturing Co., Quincy, Ill., who also will furnish metal wheels at low prices made any size and width of tire to fit any axle.

$1.35 MILK CAN

For $1.35 we sell the genuine Wisconsin pattern eight-gallon Milk Can. One of the most popular cans for creamery, dairy and general wagon use. Made for us under contract by the best milk can maker in America. Made from high grade heavy tin plate, extra well soldered, heavy breast and bottom hoops, seamless neck and cover. Average weight, 15 lbs.

OUR OFFER Say how many cans you want, cut this ad. out and send to us, enclose our price at the rate of $1.35 per can and we will send you the cans by freight. If you do not find them perfectly satisfactory, the greatest value ever offered, very much lower in price than you can buy elsewhere, you can return at our expense and we will refund your money. Freight will average on six cans about 75 cents for each 500 miles. For prices on other kinds and grades, best patterns made, write for Free Catalogue of Dairy Supplies. Address,

SEARS, ROEBUCK & CO., CHICAGO.

Ford's Sound Seeds.

As clean, as sure, as profitable to plant as ever. We make it a positive rule never to send out anything but the best of selected and tested seeds. Write for catalog. It's free.

FORD SEED COMPANY, Dept. E, Ravenna, Ohio.

SAW YOUR WOOD

With a FOLDING SAWING MACHINE. 9 CORDS by ONE MAN in 10 hours. Send for FREE illus. catalogue showing latest improvements and testimonials from thousands. First order secures agency

Folding Sawing Mach. Co. 55 N. Jefferson St. Chicago, Ill.

The Grange

By MRS. MARY E. LEE

OHIO STATE GRANGE

THE thirtieth annual session of the Ohio State Grange, held in Defiance, December 9-12, 1902, was one of the most successful in every point in many years. The granges and the citizens vied with one another not only in extending a cordial welcome, but during the entire time showed how large were their hearts, how cordial their friendship. The committee on arrangements placed every possible facility at our disposal. The reception committee met every incoming train for two days, and directed visitors to the hospitable Crosby House, the grange headquarters. Here was established a bureau of information; every desire was met, and when mistakes were made, the committee, backed by the mayor, Hon. J. A. Evans, hastened to correct them. Defiance proved a royal host. Pleasant memories of the visit will be cherished by those so fortunate as to enjoy the bounteous hospitality.

Tuesday evening, December 9th, Defiance publicly welcomed the grange with a pleasing program. The addresses made by distinguished citizens and Patrons were interspersed by music and recitations of a high order.

Many prominent Patrons were present. Besides the officers, we noted Mrs. F. A. Derthick, Mrs. S. H. Ellis, Mrs. Freeman, Mrs. Holman, Judge Huggins, Hon. R. O. Hinsdale, E. A. Peters, Mr. and Mrs. R. J. Tussing, Rei Rathbun, Miss Mason of the "Ohio Farmer," J. S. Brigham, D. E. Dunham, Mr. Hogsett, Mr. and Mrs. T. C. Laylin, Dr. F. P. Ames, F. A. Ahins, Dr. and Mrs. T. P. Shields and Glen M. Cook.

Hon. F. A. Derthick was reëlected Master, C. M. Freeman, Secretary, and John Begg, Lecturer.

MR. DERTHICK'S ANNUAL ADDRESS

Mr. Derthick's second annual address was a strong paper. He reported twenty-seven granges organized and reorganized, nine new halls built, and a total of four hundred and forty-five granges in the state. "If Ohio is to be won for the grange it must not be because of greater sacrifice by the few, but by some sacrifice on the part of the many. The hard-working deputies must be supported and encouraged by the rank and file of the membership, and a more generous policy must be adopted for work actually performed. Men and women may be willing to preach grange-gospel, but sympathy and money are as much sinews of grange-extension as a missionary spirit." He recommended that the deputies should be paid for needed work in granges already established.

FINANCIAL CONDITION.—"The treasury of the Ohio State Grange, as well as that of the National Grange, is in a strong, healthy condition, and in each instance this fact should be a satisfaction to every well-advised Patron of Husbandry. Poverty in its power to accomplish great things is never seriously considered. When men embark in large enterprises we judge of their probable success by their past history and present financial backing. The magnificent victories won by our order in state and nation during the past year are, in a large degree, the result of two factors: First, we were 'right;' second, our strong bank-account indicated the ability of the order to sustain a protracted contest if necessary. In view of this, what shall be said in answer to the clamor coming up from certain granges demanding a reduction of dues, or those who forfeit their right to retain their charters by violating their sacred obligations, as well as all grange law, and taking the responsibility of reducing their dues, which, by the Ohio law, are already lower than those of any other organization. If a subordinate grange wishes to exert a commanding influence in its community, it must have a good financial footing. If it desires to persuade men and women to join, it must have something to join."

THE PRESS.—"In the work of grange-extension, as well as in the tenacity of grange-life the press is a powerful ally of the intelligent grange deputy. Hand in hand these two forces go forth to conquer. An increasing number of local papers are willing to carry grange news to their readers. The wise, alert deputy will supply these papers with literature, consisting of reports of grange officials, reviews of the work of the order, extracts from bulletins, and general grange news. Several leading agricultural journals have espoused our cause. The "Michigan Farmer," "Ohio Farmer," FARM AND FIRESIDE and "The Pittsburg Stockman" all circulate quite generally in Ohio, and each carries a grange department ably edited by a member of the order. These journals should receive our hearty support, as they offer us the opportunity of placing current grange literature before very large audiences already gathered, without expense to the order."

LEGISLATION.—"The grange is reminded of the struggle to secure the Grout law, and warned that it will probably be repealed or weakened by the present Congress if the order is not on guard. The passage of that law is justly putting millions of dollars into the pockets of the farmers in the United States—dollars that in recent years have been going into the pockets of men equally guilty with those who counterfeit the money of the land. The success of grange-effort during the year, both in state and nation, along nonpartizan lines shows that very few public questions are of a partizan character. The principle of 'acting together' should operate in a large way. To take politics 'into' the grange would be contrary to all grange law, and fatal to the order, but recent events prove conclusively that it is entirely safe and proper to take the principles and purifying influences of the grange into 'politics,' to the end that our just demands may be heeded, good men supported, and bad men relegated to the rear. . . . The legislature of our state, as well as the Congress, has treated our legislative committee with marked consideration. Our requests are being granted as rapidly as men can arrive at the truth. There is no injustice resting upon agriculture, no needed reform connected with it, but that will be speedily adjusted if fairly presented and emphasized by that principle of concentration which is an important feature of our order. This happy condition leaves us no room for complaint, save of our own class, many of whom are withholding their support from the grange, although they abound in benefits conferred by purely grange-effort. To the good times prevailing in agricultural circles the grange has been a generous contributor; yet because farmers have recently been relieved from many impositions, many of them turn from the agent that brought that relief. This is not only foolish, but wrong. In these good times we should be strengthening our lines and drilling our membership for contests sure to come."

THE OBSERVATORY

The financial resources, in all forms, of the National Grange is about sixty-five thousand dollars. This speaks volumes for the conservative business policy of those who have been intrusted with the funds. It is a splendid working-basis for aggressive grange-work.

If local granges would determinedly set their faces against cigarette-smoking, moderate drinking, profanity, hoodlumism, coarse, brutalizing vulgarity, these vices would soon be crowded out. Such vices are not the normal condition, and exist only by the sufferance and consent of the better class of people.

It is the little things of life—the smile, the frown, the helpful or unhelpful spirit, the performance or non-performance of little, kindly deeds—that mark the boor from the gentleman. No man can hide his nature from the observing world. While he fondly thinks he thrusts another, 'tis his own life that is browning on the spit.

GIVE THE BOY A CHANCE TO LEARN ENGINEERING BY MAIL

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INSTRUCTION UNDER MEMBERS OF FACULTY OF ARMOUR INSTITUTE OF TECHNOLOGY

COURSES IN

Electrical, Mechanical, Locomotive, Stationary, Marine and Sanitary Engineering; Navigation; Architecture; Mechanical and Perspective Drawing; Sheet-Metal Work; Textile Manufacturing. Also 40 Short Special Engineering Courses.

Catalogue sent upon request.

American School of Correspondence at Armour Institute of Technology Chicago, Ill.

Mention the FARM AND FIRESIDE.

MONEY IN GOOD CABBAGE

My elegant new book for seed growers is a store house of rare seed information. Tells about my famous varieties of money making cabbage.

WRITE TO-DAY **FREE** Mention this Paper, and I will send you a package of **Buckbee's Gold Coin Cabbage,** the best growing variety on earth together with a copy of my great Seed Book.

H. W. BUCKBEE
Dept. L-53, Rockford Seed Farms, Rockford, Ills.

Seed Potatoes

$1.50 a barrel and up.

Michigan Northern Grown are always the best. 30 best varieties. Blight proof, enormous yielders. Highest quality, lowest prices. Sold in any quantity, one pound to a carload. 100-page Catalogue FREE on request.

Harry N. Hammond Seed Co. Ltd.
Box 43, BAY CITY, MICH.
Largest growers in America of Vegetable, Field and Flower Seeds.

Rawson's

1903 Seed Catalogue for Market Gardeners, published by a practical gardener, tells what are the most salable and best paying varieties and contains complete list of

ARLINGTON TESTED SEEDS

The best the ground produces. Catalogue free. Send for it.

W. W. RAWSON & CO., Seedsmen, 12-13 Faneuil Hall Square, Boston, Mass.

EVERGREENS

Hardy sorts, Nursery grown, for windbreaks, ornament and hedges. Prepaid, $1 to $10 per 100--50 Great Bargains to select from. Write at once for free Catalogue and Bargain Sheet. Local Agents wanted.

D. Hill, Evergreen Specialist, **Dundee, Ill.**

Globe Incubators

Hatch Every Hatchable Egg.

Easy to take care of because it takes care of itself, and the price is right too. Fine large illustrated catalogue free. Address

C. C. SHOEMAKER, Dept. 491, Freeport, Ill., U. S. A.

ABORTION Retention of Placenta and Failure to Breed

Kellogg's Condition Powder is a positive cure for these diseases. Write for circular. Address

H. W. KELLOGG CO., St. Paul, Minn.

STARK TREES best by Test—78 Years Largest Nursery. Fruit Book free. We Want More Salesmen **PAY** Cash Weekly

STARK BROS, Louisiana, Mo.; Dansville, N. Y.; Etc

SEED CORN Early Golden Surprise Field Corn a Specialty. Write at once for our free Annual Catalogue for 1903 on Garden Seeds, Small Fruits, Poultry, Chester White Hogs and Polled Angus Cattle.

SIMON BELL & SON, R. D. No. 3, Junction City, Ohio

WE PAY $26 A WEEK and expenses to men with rigs to introduce Poultry Compound: INTERNATIONAL MFG. CO., PARSONS, KAN.

THE VALUE OF CHARCOAL

Few People Know How Useful It is in Preserving Health and Beauty

Nearly everybody knows that charcoal is the safest and most efficient disinfectant and purifier in nature, but few realize its value when taken into the human system for the same cleansiug purpose.

Charcoal is a remedy that the more you take of it the better; it is not a drug at all, but simply absorbs the gases and impurities always present in the stomach and intestines, and carries them out of the system.

Charcoal sweetens the breath after smoking, drinking, or after eating onions and other odorous vegetables.

Charcoal effectually clears and improves the complexion, it whitens the teeth, and further acts as a natural and eminently safe cathartic.

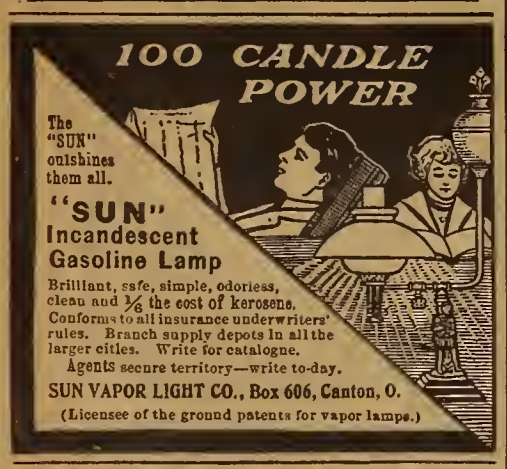
It absorbs the injurious gases which collect in the stomach and bowels; it disinfects the mouth aud throat from the poison of catarrh.

All druggists sell charcoal in one form or another, but probably the best charcoal and the most for the money is in Stuart's Absorbent Lozenges; they are composed of the finest powdered Willow charcoal and other harmless antiseptics in tablet form, or rather in the form of large, pleasant-tastiug lozenges, the charcoal being mixed with honey.

The daily use of these lozenges will soon tell in a much-improved condition of the general health, better complexion, sweeter breath and purer blood; and the beauty of it is that no possible harm can result from their continued use, but, on the contrary, great benefit.

A Buffalo physician, in speakiug of the benefits of charcoal, says, "I advise Stuart's Absorbent Lozenges to all patients suffering from gas in stomach and bowels, and to clear the complexion and purify the breath, mouth and throat; I also believe the liver is greatly benefited by the daily use of them; they cost but twenty-five cents a box at drug-stores, and although in some sense a patent preparation, yet I believe I get more and better charcoal in Stuart's Absorbent Lozenges than in any of the ordinary charcoal tablets."

STEVENS



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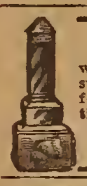

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If afflicted with weak eyes use Thompson's Eye Water

Around the Fireside

THE PANTS JEMIMA MADE

The day I first put on those pants I held
a break-up plow—
The farmers of these later days don't
have such wrassles now—
So back and forth and back and forth I
plowed and plowed that day:
I tackled every rock and snag that dared
dispute my way,
Until the only critter left was one old
maple stump,
And I?—I gave the team the gad, and
took 'er on the jump!
She split in halves, and through I went;
but back she slapped, ker-whack!
And gripped Jemimy's pantaloons right
where she'd left the slack.
The team was going double-quick—the
oxen plunged along—
I held the old oak handle-bars—I gripped
'em good and strong—
And there I was, the living link 'twixt
stump and plow, because
The cloth it stuck there good and tight
between those maple jaws.
Jemimy never planned on that, in making pants for me;
She made 'em solid, yet, of course, she
gave no guarantee
That they would stand a yank like that—
but still I clung and yelled;
Those oxen plunged and tusseled, and—
Jemimy's pants, they held!
And the stump came out a-kicking, roots
and dirt and stones and all,
But those pants weren't even started by
that most tremendous haul.
And to prove this 'ere is truthful, should
some scoffer cast a doubt,
I have saved the chips and hewings
where they came and chopped
me out.

—H. F. Day.

FRANKLIN'S MAXIMS

Benjamin Franklin published "Poor Richard's Almanac" for some twenty-five years. Instead of prophecies, he enlivened the pages with maxims, many of his own making. He once said, during his travels, "Nothing gives me so much pleasure as to hear the people quoting my maxims." The following are as true to-day as in Franklin's time:

"Lost time is never found again."

"He who riseth late must trot all day."

"There are no gains without pains."

"The cat in gloves catches no mice."

"Keep thy shop, and thy shop will keep thee."

"One to-day is worth two to-morrows."

TRUE GRANDEUR

Love took up the harp of Life, and smote
on all the chords with might;
Smote the chord of self, that, trembling,
passed in music out of sight.

Until self passes out of sight and becomes merged in the harmony of universal life, a man's or a woman's chances of happiness are not worth considering. To think continually of how we feel, how we look, how others regard us, whether we receive our proper share of deference and attention, whether this one slighted, or that one looked down upon us, is to be too small to recognize the true grandeur of manhood or womanhood. The kingdom of the soul should be too large to harbor such petty thoughts. The ruler of that kingdom should be too sensible of the height on which he stands to feel that any power outside of himself can hurt, belittle or humiliate him.—Success.

WIFE

What do you think the beautiful word "wife" comes from? It is the great word with which the English and Latin languages conquered the French and Greek. I hope the French will some day get a word for it instead of that of "femme." But what do you think it comes from? The great value of the Saxon's words is that they mean something. Wife means "weaver." You must either be housewives or house-moths, remember that. In the deep sense, you must either weave men's fortunes and embroider them, or feed upon and bring them to decay. Whenever a true wife comes, home is always around her. The stars may be over her head, the glow-worm in the night's cold grass may be the fire at her feet; but home is where she is, and for a noble woman it stretches far around her, better than houses ceiled with cedar or painted with vermilion, shedding its quiet light for those who are homeless.—Ruskin.

AN IRISH METEORITE

The British Museum has, I learn, acquired the meteoric stone which fell on the thirteenth of last month in a cornfield near Crumlein, County Antrim, Ireland. It weighs nearly ten pounds, and as it fell a noise resembling a boiler-explosion was heard for some miles around. It sank into the earth to a depth of only about eighteen inches, the fact that it did not go deeper being probably due to the meteorite having first struck a stone when it touched the ground. This is the fourth recorded meteorite, I am informed, which has fallen in Ireland, the one before this having fallen in Dundrum, Tipperary, in August, 1865. Only two meteorites are, I believe, recorded from Scotland, the last fall having occurred near Perth on May 17, 1830. The most ancient of all records of the fall of stones from the sky, if interpreted in the usual way, is that given in the tenth chapter of the book of Joshua, where we read that during the flight of the Canaanites after the battle of Gibeon great stones were cast down from heaven, so that more were slain by them than with the sword. It is not quite clear, however, from the text that a prolonged shower of large hailstones is not referred to. It is somewhat singular that, as I am reminded, till the beginning of the present century the fall of stones from the sky was an event the actuality of which neither men of science nor the mass of the people could be brought to believe in. The oldest undoubted sky-stone still preserved is the one seen in the parish church of Ensisheim, in Alsace, of which a record states that it fell on the sixteenth of November, 1492.—The Edinburgh Scotsman.

REWARD OF LEARNING IN ANTIQUITY

In ancient Greece and Rome men distinguished by their learning were esteemed by kings and emperors, and often more honored by the people than the first of the republic, which cannot be said to be the rule in our days. To realize the miserable condition of our men of learning, as compared with those of antiquity, we need but to read of the honors and rewards heaped upon almost all ancient authors. Plato was honored by the tyrant Dionysius of Syracuse with a seat in his own chariot. When Alexander the Great had the city of Thebes destroyed (336 B.C.) he gave special orders that the house of the poet Pindar should be spared. Such consideration is certainly not shown to the poets of to-day. The Syracusans, who had made some Athenians prisoners of war, gave them back their liberty after hearing them recite some scenes of Euripides. The great Scipio Africanus carried always with him a small bust of the poet Ennius (239-204 B.C.), which, before his death, he ordered to be placed beside his tomb. Mithridates showed his great veneration of Plato by ordering the latter's statue to be placed among those of the greatest kings of Pontus. The Athenians paid the same honor to Demosthenes. The Romans went even further in this respect. When, after the siege of Jerusalem, Josephus was brought a prisoner to Rome, they not only set him free again, but, in appreciation of his work, "Antiquities of the Jews," erected a statue in his honor. The pecuniary rewards received by the ancients were in their way not less considerable than the honors accorded. For his "History of the Animals" Aristotle received from Alexander eight hundred talents, which equaled about eight hundred thousand dollars of our money. The son of the Emperor Severus rewarded a poet with as many gold pieces as his rather long poem on the nature and properties of the fishes contained lines. The Emperor Gratian conferred upon the poet Ausoneus the consulship and other distinctions. It is well known that all learned men at the court of Augustus were loaded with benefits. Virgil, Horace and many others had every reason to praise his generosity. It is said that when Virgil recited the sixth book of his Æneid before Augustus and his wife, Livia, the latter was so overcome with emotion that she fainted, and after coming to herself again she ordered that the poet should receive ten sesterces for every line still unrecited of the praise of Marcellus. This gift amounted to about fifteen thousand dollars in our money. Even the worst and most cruel princes of antiquity would have felt ashamed to suffer the learned to live in indigence. Nero gave considerable property to Seneca. Domitian, whose character was almost as bad as Nero's, bestowed great gifts upon a poet of little merit. Even avarice and stinginess did not prevent the ancients from rewarding the men of talents and learning. Vespasian, who was accused of great avarice, rewarded nobly the sciences and fine arts. The salary which he fixed for each professor was more considerable than the revenues of some of our colleges; namely, twenty-five hundred gold pieces, of the value of about five dollars each.—New York Tribune.

CURIOUS AND WONDERFUL

The year 47 B.C. was the longest year on record. By order of Julius Cæsar it contained four hundred and forty-five days. The additional days were put in to make the seasons conform as nearly as possible with the solar year.

The oldest tree on earth with an authentic history is the great bo-tree of Burma. For twenty centuries it has been held sacred to Buddha, and no person is allowed to touch its trunk. When the leaves fall, they are carried away as relics by pilgrims.

The most surprising property of aluminium is its newly discovered power of giving a fine, razor-like edge to steel cutlery. Magnified a thousand times, the knife-edge produced on the ordinary whetstone appears rough and jagged, while that wielded by the aluminium sharpener is straight and smooth.

Phœnix, Arizona, the center of Salt River Valley, was a few years ago a sage-brush desert. It has now twenty-five thousand inhabitants, with an assessed property valuation of ten million dollars. All this is due to water, which, brought in canals from streams fed mainly from San Francisco and other Arizona reserves, has turned the desert into a fertile valley, covered with ranches and dotted with small towns.

Many fish can produce musical sounds. The red gurnard has earned the name of sea-cock from the crowing noise which it makes, while another species is called the piper. Others, notably two species of ophidium, have sound-producing apparatus, consisting of small, movable bones which can be made to produce a sharp rattle. The curious "drumming" made by the Mediterranean fish known as the meigre can be heard from a depth of thirty fathoms.

The three balls—the sign of the pawnbrokers in this country and Great Britain—are derived indirectly from the coat of arms of the Medici family of Florence, Italy. The family sprang from a physician—a medicus; it became wealthy through transacting a banking business for many years, and when it became noble it adopted five golden pills on a blue ground as its armorial device. Bankers in other countries adopted the same device, either in whole or in part, as a sign of their business; and when bankers gave up the pawnbroking business the pawnbrokers retained the old Florentine device.

Sunday Reading

UNDER THE SNOW-FIELDS

BY SARA E. GRAVES

Under the snow-fields the blossoms are sleeping,
Never a petal unfurled to the breeze;
Imprisoned each rootlet are frost fetters keeping,
Winter is king now, and firm his decrees.

Under the snow-fields, like Death in her slumber,
Nature is stilled in the night of the year;
No toiling nor spinning for one of her number,
Not even a bud to bespeak us good cheer.

Under the snow-fields Earth's treasures are waiting
Spring's gentle summons to service again;
Her loving smiles winter tempests abating,
Her magic touch in the sunshine and rain.

Under the snow-fields a heart that was weary
We folded away in the night of the year;
Gone was our sunshine, and, frozen and dreary,
Our souls knelt in anguish and cowardly fear.

Under the snow-fields Love's idol is sleeping,
Nevermore hearing our agonized prayer,
Never again to answer our pleading;
Alone we return to our garden and care.

Under the snow-fields? O mourner that fearest!
List to the peans His couriers sing
When they take from your casket the gem that is clearest
And set its white light in the Home of the King.

FAMILY DEVOTION

At the close of a lecture in a neighboring town his friends entreated Wendell Phillips not to return to Boston. "The last train has left," they said, "and you will be obliged to take a carriage into the city. It is a sleety November night, cold and rainy, and you will have twelve miles of rough riding before you get home." To which he replied, "But at the end of them I shall find Annie Phillips."

This is a beautiful anecdote illustrating his devotion to his invalid wife.—Herald and Presbyter.

THE ADVICE CAME HOME TO ROOST

The president of one of the prominent railway corporations in America was making a stirring address to an audience of young men, and dwelt with particular emphasis on the necessity of making a good appearance.

"When you are looking for work," he said, "be careful that you are presentable. If you have only twenty-four dollars in the world, spend twenty dollars for a suit of clothes, three dollars and fifty cents for a pair of shoes, and fifty cents for a hair-cut and shave. Then walk up to the job, wherever it may be, and ask for it like a man."

This advice was greeted with great applause, and the railway president sat down amid a storm of cheers.

The very next morning a dapper-looking young fellow walked into the outer office of the orator, and handing a note to the clerk, said, "Please give this to the president."

The note read: "I have paid twenty dollars for a suit, three dollars and fifty cents for a pair of boots, and fifty cents for a hair-cut and a shave. I have walked from Harlem, and I would like a job as conductor on your road."

It is needless to say that he got the job.—Baltimore Methodist.

HOLD STEADY, BOYS

While employed in a government position at Washington I was assigned to a section chief, who, according to the consensus of opinion of the entire section, was doltish, overbearing, incompetent and officious. Although his orders were sometimes without reason, and oftentimes at variance with my judgment, I obeyed them to the letter. A friend of mine, an exceedingly bright young fellow, resented our superior's stupid impertinence, and was discharged. To this day the records read opposite his name: "Dismissed for incompetency and insubordination." I was promoted three times within a few months, and the obnoxious official was found out by his superiors, and superseded. It proved an effective lesson to my friend, however, for he has since been eminently successful in a large city. If the lesson can be learned without the experience, so much the better.

A young man empioyed in a great industrial system should fill well his place. He can expand in it, but it must not be all head-expansion. Faithfulness to the duty at hand, and to those who have the responsibility, is the best omen of larger usefulness and more prominent place. If the young man's immediate employers do not see and appreciate his qualities, there are others who will. The cry that all business is controlled by the trusts, and the trusts have their pets, so that the young man of to-day without a pull has no show, is the veriest balderdash. What capital wants is a man who brings things to pass. The young man of push is the winner. There is a wide field for its display outside the learned professions.

Husband well your leisure, young fellow. Accomplish something outside of office-hours. Do not throw away energy upon the inconsequential. Improve body, mind, soul. Success is not wholly counted in dollars. Pray—and push.—Wm. B. Mathews, in the Epworth Herald.

THE MAN WITH A FLAG

I do not mean the Stars and Stripes. That is a glorious flag, which ought always to arouse our enthusiasm, and to make our blood boil with patriotic fervor, since it is the symbol of human liberty. Nor do I mean the white flag representing the cross. That, too, should be dear to us, and we should put it just above the flag of our country. Blessed is the man who unfurls and carries this white banner and also "Old Glory."

The flag I mean is a red flag, and is a danger-signal. It is a tocsin of alarm, a note of warning, a voice, a cry. It says, "Beware!" It shouts, "Stop!" "Look out!" The man who carries it is a servant to his fellows, a lover of his kind, a benefactor, a philanthropist. He may get money for it, but the service he renders is beyond the value of money. It saves life, and life is beyond human computation in its value.

These thoughts are the outgrowth of having seen the flagmen on their beats, marching back and forth, and never out of sight of each other, on the West Shore Railroad along the Hudson River, where they skirt the deep water on one side, and on the other are steep, overhanging cliffs, the rocks of which menace the safety of the trains. Should one fall in front of an approaching train, going with the speed at which travelers nowadays demand, in order to secure their patronage, there would be not only a collision, with its awful results, but the train would likely be thrown into the river, with added horrors. So the company wisely employs these flagmen, who patrol the track with eagle eyes, and who, should there be any obstruction, would instantly flag the approaching trains. As "eternal vigilance is the price of liberty," it is also the price of safety.

Every Christian should be like the man with the flag—should, in fact, be a man with a flag, waving it in the face of those who heedlessly and thoughtlessly rush on, regardless of the impending danger. —Rev. S. L. Hamilton, in The Epworth Herald.

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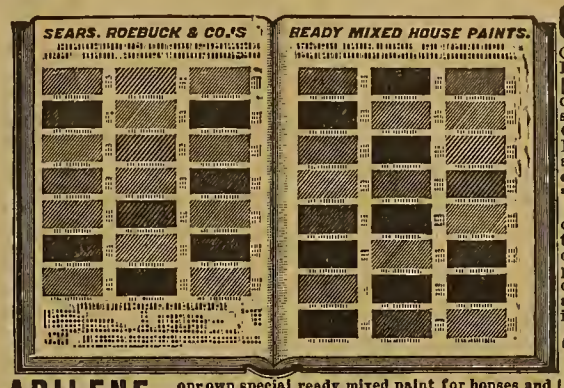

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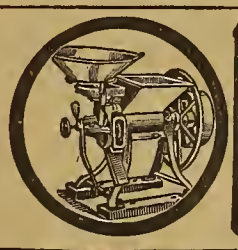

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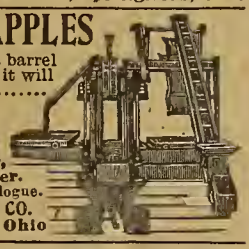

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The Housewife

CHURCH SOCIALS

A POTATO SOCIAL.—Last spring the members of the junior league connected with a church in a small country town were each given a few potatoes to plant, with the understanding that the potatoes raised from them were to be used in some way to swell the mission-fund. As the plan originated in the head of a farmer who donated the potatoes, there was of course no expense connected with the affair.

The potatoes were planted and well tended, and right well did they yield.

In the last week of October a "potato social" was held in the vestry of the church one afternoon. Here the children brought their harvest of potatoes, and the huge pile was made larger by the addition of potatoes which were paid at the door as an admission-fee.

An entertainment consisting of songs and recitations was furnished by the young people, and then the potatoes were sold at auction.

Potato salad and dainty crackers were served to all.

As the potatoes sold at very good prices, a sum was realized in this manner which will go far toward educating some poor girl across the water.

A PENNY SOCIAL.—In these days of fairs, socials and other money-making enterprises anything with a tinge of novelty is gladly welcomed, and a "penny social" may be new to some localities.

In the circulars of one recently held it was stated "it will cost you one penny to get in, and one penny to get out. Lest some one attempt to evade payment of the latter fee, both will be collected when you go in. A supper will be served, for which you will pay in pennies according to the kind and amount of food you wish."

It was also stated that a fine of one penny would be charged each person who wore certain articles of finery; also that "articles neither useful nor beautiful will be offered for sale, and you will be expected to expend your pennies therefor."

Small glasses of lemonade were sold for a penny. In fact, when one begins to plan it is surprising how many articles and attractions can be offered for a penny each, and where tried, "penny socials" have usually proved a pecuniary success which greatly surprised their progenitors.

INEZ REDDING.

CELERY-TOPS

Do not throw away the celery-tops when preparing a bunch of celery to be eaten raw. Few people realize the curative properties of this article of diet, as all nervously inclined should eat very freely of it. It is also a good blood tonic.

After taking off the outer stalks, scrape them clean and free of all brown and yellowish streaks, wash them well, and cut into half-inch bits, reserving all the best leaves. Put the cut bits into boiling water, and let them cook for an hour, then add the leaves, which have been thoroughly washed, and cook twenty minutes longer. Pour off, and press out all the water, adding salt to taste. To this add one tablespoonful of butter rolled in flour, a little sugar and a few spoonfuls of cream; return to the fire, and stir until very hot, when it is ready to serve. It should be good and hot when served.

W. D. MARSH.

CHILD'S CAP AND COAT

This suit is made of mode-color velvet, with pink ribbon trimmings, and is suitable for a little girl from two to four years old.

To make the trimming, take any good Battenberg pattern of collar, cuffs and straight edges, and work the pattern in white silk soutache braid with white silk twist. When completed, sew duchesse braid all around the edge as a finish.

The cap is of pink silk made over a foundation, and trimmed with the braid trimming, like the coat. A rosette of pink No. 2 satin ribbon is put at each side.

M.

CHILD'S COAT

ITEMS FROM THE BOOK OF EXPERIENCE

Health is of prime importance in any family, and to know the ounce of prevention as well as the pound of cure is very necessary for the mother or daughter of the home, and especially if that home is situated some distance from the doctor.

Let me give some suggestions gleaned from experience in a family of eight that has not had a doctor in the house for fifteen years except in case of accident.

Many a serious illness may be prevented by the timely use of home remedies. A cold is a very common ailment, especially in the winter, and often results in catarrh, pneumonia, and even consumption. Here the ounce of prevention may be plenty of fresh air, avoidance of drafts, good, warm clothing and moderate eating; but if, in spite of these precautions, some member of the family feels as if he was contracting a cold, he should be given a hot foot or sitz bath and plenty of hot drinks. Nothing is better than a sweat to break up a cold or grippe. Wrap the patient in several comforts, and give plenty of hot lemonade or hot water. Be careful that the patient does not cool off too soon, or the remedy will be worse than the disease.

One member of the family always eats a whole onion before retiring at night when he feels the symptoms of a cold, and finds it works like magic in his case. Some, however, would think this strong medicine. Let me say right here that onions are very healthful, and should be eaten freely. A well-known physician made the remark, "If more onions were eaten there would be less call for doctors."

Sore throat is another common ailment, and one that is not to be trifled with. A diphtheric sore throat should have the attention of a physician at once, but even in such cases much can be done before he arrives. Sulphur is one of the best medicines for sore throat of all kinds. It should be blown into the throat by means of a quill, and burnt in the room with closed doors. If sulphur is freely used when contagious diseases are around, there is little danger of infection; it is also a valuable blood medicine, and should always be kept in the house. Kerosene oil is good for a gargle, as it is cleansing. Children, however, will often refuse it on account of the smell and taste. A good gargle is made by boiling together sugar, vinegar and pepper. Sage-tea is also excellent as a gargle, and is also good taken internally. Doctors usually prescribe potash for this purpose, which should be obtained with directions and kept in the house. For external treatment nothing is better than a liniment made of equal parts of camphor, turpentine, kerosene and olive-oil or sweet-oil. Rub well on the throat, and put a hot flannel cloth around it. This liniment is also excellent for chest-troubles.

Turpentine should always be kept in the house, for it is valuable in many cases, and especially in that of inflammation. A tablespoonful should be put in a gallon of hot water. Flannel cloths wrung out of this and applied to the inflammation will usually give relief. Turpentine is also excellent for burns and scalds, and a few drops put on a lump of sugar and given to a child troubled with worms will work wonders.

Olive-oil is another remedy not so much used as it should be, either internally or externally. Lives of many weakly children have been saved by means of olive-oil baths. These baths are strengthening to invalids when water baths would be weakening, and are also a great relief to sore and tired feet, in fact to all kinds of soreness.

A noted doctor prescribed a linseed-meal poultice for tonsillitis, and it proved an excellent remedy. In speaking of poultices I find nothing better than an onion-poultice to relieve colds that have settled in the throat or chest. Hot bread-and-milk poultices or ones made of soap and brown sugar are good for drawing.

These are but a few of the remedies that should be found in every household. Camphor for toothache and to scatter swellings; carbolic acid for cuts and sores; licorice-powder for constipation, since the children like it, and mustard for plasters, should be found on every medicine-shelf.

PANSY VIOLA VINERS.

CHILD'S CAP

MISTAKES WOMEN MAKE

One of the mistakes of womankind is in not knowing how to eat. If a man is not to be fed when she is, she thinks a cup of tea or anything handy good enough. If she needs to save money, she will do it at the butcher's cost. If she is busy, she will not waste time in eating. If she is unhappy, she goes without food. A man eats if the broker's man is at the door, if his work drives, if the undertaker interrupts; and he is right.

A woman will choose ice-cream instead of beefsteak, and a man will not. Another of her mistakes is in not knowing how to rest. If she is tired, she may sit down, but she will darn stockings, crochet shawls, embroider doilies. She doesn't know that hard work tires. If she is exhausted, she will write letters or figure her accounts. She would laugh at you if you hinted that reading or writing could fail to rest her. All over the country women's hospitals flourish because women do not know how to rest. Another mistake on the list is their constant worrying. Worry and hurry are their enemies, and yet they hug them to their bosoms. If women could only learn the secret of repose, and be able to throw off care, they would preserve their youth much longer, and their lives would be a great deal happier.

The Housewife

A LITTLE SATIN STOCKING

As everything has its times and its seasons, so do church and charity socials, and winter is preëminently the time for socials. With many it is a mooted question as to raising money for church purposes by any method except voluntary giving. Still that, like many questions where no particular principle is involved, should be left with each society. Granted that some will always have these socials, it is pleasant to find new ways of soliciting small amounts and new ways of calling attention to these matters.

There came in my mail, away off here in the Province of Quebec (where the thermometer plays around twenty below, venturing to twenty-six, then back to what the people here call warm, when it touches nineteen and a half below), a beautiful old rose satin stocking not a finger in length, daintily made, and a little gathering-string of silk floss about the top. Inside the envelope, wrapped around the little stocking, was a rhyme, making the stocking do its own errand. The rhyme was as follows:

This little sock we give to you
  Is not for you to wear;
Please multiply your size by two,
  And place therein with care,
In pennies or in cents,
  Just twice the number that you wear
(We hope it is immense).

So if you wear a number 10,
  You owe us 20—See?—
Which, dropped within this little sock,
  Will fill our hearts with glee.
'Tis all we ask, it isn't much,
  And hardly any trouble;
But if you do not come at all,
  We'll surely charge you double.

Now, if you have a friend quite dear
  You'd like to bring with you,
Or if you know some one who'd come,
  We'll gladly give you two.
So don't forget the place and date;
  We'll answer when you knock,
And welcome you with open arms,
  But don't forget the sock.

These letters such as mine went to many living far afield from the old home church where we were children together, and when they journeyed back there was a hundred dollars to add to the women's furnishing-fund for the repaired church-building, all in small offerings. The value of little is shown by a successful stocking social.

Mary Joslyn Smith.

DRESSED FOR WORK

"You are dressed for work, sure enough," was the remark made to me by a stenographer who "had an office of her own," as I stepped out of the elevator.

I replied, "Yes; I do not intend to get my clothes all dirty."

Another friend of mine who called during business hours at the office where I am employed remarked, "Do you wear that rigging every day?"

By that she meant my blue gingham apron and my gingham sleeve-protectors.

I said, "Yes; when I have to make my shirt-waists myself I am not going to wear them out in a hurry, or get the sleeves all dirty rubbing over my desk-blotter."

It may look like "rigging," but all the same it goes a long way toward keeping your office apparel in good condition, as well as your pocketbook. If girls who have to earn their living would only realize that false pride does not count, but that little economies like this do, they would wear an apron and oversleeves while at work. I know of one young lady who always buys enough stuff extra for her summer waists to make sleeves of them, thus keeping her shirt-waist clean at least a day longer.

In these cities of steam-laundries, where they "hold you up" at the rate of from twenty to twenty-five cents each for white waists, and fifteen cents for colored ones (fading thrown in), it soon counts up if you wear two or three waists a week. Some of us are fortunate in getting them done up for fifteen cents or two for a quarter. I have been able to coax my washerwoman to do my waists for ten cents each, on the plea that they were made plainly and did not need too heavy starching.

White shirt-waists are far more economical than colored ones when you consider the fading of them by the laundries, and with care they can be kept clean for three days at least.

It makes me wonder what kind of housekeepers some of these girls are or will be when I see them trailing a long skirt to and fro to the office, generally accompanied by a fancy silk waist, lots of fluttering ribbons and jewelry, bows in their hair, and hands laden with rings. Their long skirts look as though they had a contract with the city commissioners to clean the streets.

A short skirt—by that I mean one that is at least two inches from the ground (some can stand more)—is far more preferable, saves many a backache, looks better, and in one way is a saving in your wash-bill, too. Wear a neat and pretty shirt-waist, then an apron and oversleeves, and see how much you can save.

Another precaution: Hang your skirts up right, also your waists, and they will keep their shape, look better and last longer than when you grab them by the middle of the band in front, pull them down over a hook in the closet, or hang the waist up by the collar-band in the back and make a hump where the hook has been.

Don't pin your skirts to the waist in the back; put invisible eyes on your waists, hooks on your skirt-bands, and fasten them properly. I always feel sorry for a girl when I see her belt missing connection with her skirt, and a big safety-pin looming into view. It is the little things that count—the cotton thread in the silk that spoils the goods.

W. D. Marsh.

SOFA-PILLOW

SOFA-PILLOW

The material for this pillow is of apple-green mercerized cotton. The figures, carried out in white corset-laces, are so simple as to require no explanation.

The ruffle is stitched around twice with white silk. The pillow can be filled with soft cotton batting if feathers are not at hand.

M.

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Josephine

Winning a Cold Sweetheart and a Sunny Home

By FRANK H. SWEET

CHAPTER II.

THE BARTON PLACE

"PLEASE don't use the pronoun that way," she said, calmly, "as it is very optimistic; and you know optimism is your greatest stumbling-block. The land slopes quite nicely toward the lake, as you say, but it strikes me as being rather wild and uncultivated. You never could live off here, Spencer, with your social instincts. Let me see, you danced at least five evenings last week. If you must build a cottage, why don't you build on the east side, near the hotel? Clarence Hawkes is going to build one there—after something he saw in Spain, I believe. He was showing me his plans the other day."

Spencer winced a little. "Clarence Hawkes is able to build anywhere he pleases," he answered. "Like your people, he has never felt the need of counting money. I haven't a dollar except what I made myself, as you know. That's why I must build here. I can buy this ten acres and put up a nice little cottage with the money I've saved. Over there near the hotel the money wouldn't pay for land enough on which to put a house. But you know all this, Josephine; I've been over the whole thing with you more than once—though I confess," with a grimace, "you haven't always been a good listener. But there's another reason why I like this spot—my work. I haven't been doing justice to it lately. I like dancing and the social side of hotel life—perhaps because I didn't have any of it when I was young; I had to work too hard then for recreation. But I honestly like my work better. This semi-isolation did not prove successful as a hotel venture, but it is an ideal spot for a private residence. We—well, I, then, if you prefer it that way—will have a launch down there at the dock. Fifteen minutes will make available such advantages as the hotel has to offer, while another fifteen will shut away the annoyances and interruptions which naturally accompany such a place. In other words, we can work and we can play, alternating toward the desirable as our fancy may dictate. Don't you think the arrangement a good one, Josephine?"

"Who's that man coming yonder?" asked Josephine, inconsequently. "He seems to be making directly for us."

Spencer had been too absorbed with his own plans to notice that any one but he and Josephine were on the island, but he now turned. The man had already approached to within speaking-distance.

"Good morning, Mr. Grant," the man called. "Looking over the land, I see."

"Yes; and I'm glad you happen to be looking it over yourself this morning," Spencer rejoined. "It will save me a visit to your house. It's Mr. Barton, the owner," he said, in an aside, to Josephine. Then to the man he said, "You remember our conversation last spring, before I started North?"

"About buying the land? Yes. Are you still of the same mind?"

"More than ever. This beautiful section grows upon one, I think. I'm ready to close with your offer now. Four thousand, I believe you said?"

The man laughed. "That was last year's price," he answered. "This section grows in more ways than upon one's liking. I'm looking over the land this morning in search of a price for a prospective customer. I had fixed upon about six thousand as the proper valuation, but the land looks so well that I've decided to ask eight instead."

"Eight thousand!" ejaculated Spencer, in dismay. "Why, man, such a price is preposterous! There's nothing here to warrant it!"

"Not right here, perhaps," the man replied, imperturbably, "but suppose you inquire about land on the other side. I know of places that have quadrupled since last year. If I don't sell before another season I shall raise the price to twelve thousand—and I'll get it, too," he added, confidently. "I haven't lived here so long not to be able to read the signs. Before many years this whole lakeshore'll be dotted with winter homes. At eight thousand the place is a bargain, and I'm not telling you so because I own the land, either." He waited a moment; but as Spencer did not speak, he said, "Since you talked about buying the land last fall, of course I'll give you the preference. If you want it for eight thousand, it's yours."

"No; the price bars me out," replied Spencer. "You may tell the other prospective customer that he can have the place."

"You are making a mistake, sir—a big one," the man urged; "and I'm not telling you so because I own the land, either."

"Perhaps; but we'll let it go that way. I hope the other man will buy before you look the land over again, though."

Josephine had already turned away, and was walking slowly down the slope toward the dock. He hastened to join her.

"That ends the house question for the present," he said. "This ten acres seems especially suited to my needs, and it's the only piece of land I've been able to find on the lake that does. All the others that are in the market are too large or too small, too high-priced or too far away, or too something. This is the only spot within my means that I really like and that I had begun to set my heart on." He kicked at a stone impatiently, then laughed as he said, "But it will suit you, at any rate, Josephine. You like hotel life best."

"I fail to see the connection."

"Do you?" He looked at her wistfully for a moment, then his face grew strong and determined. He drew her arm within his. "You know very well that I love you, Josephine," he said, quietly. "I may not have asked you to be my wife in so many words; but I have declared my hopes—yes, and my intention—in a thousand other ways. You have understood. You could not help it. If I have not been as bold, as direct, as I would like, it was because—well, you are an heiress and I am a poor devil of a picture-maker. I have resolved a thousand times to be sensible and strong, and a thousand times have been weak. So circumstances have been allowed to take their course. But after to-day, and what has been said, we must come to a better understanding. I have only what I make, but I can keep you at a hotel in a moderate way; and perhaps—but it is egotistical to borrow from one's prospects. Will you be my wife, Josephine?"

She was a long time in answering—so long that he released her arm and stepped squarely before her in the path, where he could look into her eyes. She did not flinch from his gaze, though her lips were not quite so firm as usual.

"No, Spencer; I am not ready to marry any one," she answered.

"Not even Clarence Hawkes—no, I beg your pardon, I didn't mean to say that."

"I don't mind. No, I am not ready to marry even Clarence Hawkes, though he asked me the other day. You would like to know my answer," seeing the mute inquiry on his face, "but think it would be ungentlemanly to ask? Well, it was the same as it is to you. I am not ready to marry anybody—anybody! Do you understand? Clarence Hawkes is a splendid fellow! But he must wait."

"And may I wait, too?" Spencer asked, eagerly. "You will at least give me that hope, Josephine?"

"It wouldn't be wise," she answered, coldly. She was gazing over his shoulder, across the water, to where from the highest point of the hotel an English flag was flying. That meant the Governor of Nassau had again arrived with his suite, and that special honor would be done him. There would be more gaiety, more music and greater display of rich costumes, if that were possible. Her foot began to tap an involuntary tribute to a strain that was coming across the lake. One of the orchestras was at the pavilion now, playing for the bathers in the surf and in the pool, and that was a bar from the very two-step to which she had danced with Clarence Hawkes the night before. "No, it wouldn't be wise," she repeated. "You have your work to do, and I can understand how a place of social gaiety would be an unsuitable residence. You should seek recreation away from your work, not take your work to it. As for me, I don't think I would like work at all. Ah! you are listening to my foot-taps," abruptly. "You should take them as the keynote of my character. You might put me in one of your pictures as Terpsichore, which perhaps would be of use; but never imagine I could be of help to you in any other way. There, don't scowl at me, Spencer," lightly. "You are on this side of the lake, with an occasional peep into Paradise; I am essentially and unconditionally of the other side. Now let's go."

"Wait a moment, Josephine," he commanded, almost sternly. "What you've been saying is the merest bosh, false in perspective and misleading in intention, and you know it. You may be of the other side and I of this, or you may be of anywhere and I of anywhere; that doesn't matter an iota. The essential fact is that I love you, that I have loved you from the very first day we met, that I shall continue to love you through all time, and that I believe you care a little for me. If such a thing is possible, I shall win you; if not, I shall go on loving you just the same, always. I couldn't help doing so if I would. Now we'll go."

Josephine walked by his side, strangely subdued. Once she glanced up at his set face, then instantly swept her gaze out upon the lake. But it was a gaze that was unseeing. Not until they reached the end of the dock did they notice that the launch was several rods away, moving toward the other shore.

"Hold on there!" Spencer called, sharply. "What do you mean by not waiting?"

"Half-hour was up five minutes ago," the man answered, coolly.

"What of that? Didn't I offer to pay you for extra time?"

"Mebbe; but no special bargain was struck. I'm straight-ahead business, I am. It'll be five dollars for ye two to go back." As he spoke the man checked the launch's speed slightly, then leaned over the rail, trailing his fingers nonchalantly in the water. "Hurry now, an' make up yer mind," he ordered. "I ain't no time to spare."

"Why, you scoundrel!" shouted Spencer, "come back here or I'll—"

"Oh, if ye feel that way I might as well be goin'!" the man interrupted, insolently. "I'll give ye jest one minute longer, then put on full speed."

Spencer hesitated, and glanced up and down the lake. There was no other boat in sight. The man had them at his mercy. "Very well," he called, impatiently. "You've got things your own way. Come back here and I'll—"

But at that moment Josephine touched his arm. "Don't you do it, Spencer," she urged, indignantly. "The man is just what you called him—a scoundrel. Don't you pay him one single cent more. It's only two or three miles down by the railroad bridge, and we can cross then by the ferry. And I've heard there is a good path along the shore of the lake."

"Yes, there is a very good path, but you could never walk that distance, Josephine."

"What absurdity! Just two or three miles!" she retorted. "Why, I used to be considered a very good walker. I'd rather do it a dozen times than yield to that man's demands. Let's not take any more notice of him. Come."

She turned abruptly and walked up the dock, and after the least possible hesitation Spencer followed. The walk along the shore was too alluring for much opposition.

[TO BE CONTINUED]

"If you want it for eight thousand, it's yours"

Ere yet thy heart be hard and dry,
Make haste to pardon and atone;
One hoarded hate shuts all the sky,
And turns the Father's heart to stone.
—Frederick Langbridge.

Even now from far, on viewless wing,
Hither speeds the nameless thing,
Shall put thy spirit to the test;
Haply, or ere yon sinking sun
Shall drop behind the purple west,
All shall be lost—or won!
—R. W. Gilder.

A GOOD-LUCK CHARM

BY BOURDON WILSON

"ER RABBIT foot, boss? Yes, sah, spec I kin git you one. 'Tain't no hard job teh fin' er ol' rabbit settin' 'roun' mos' anywhars." It was "Uncle" Dave who spoke.

"But that is not the kind of rabbit's foot I want," I replied. "It must be the left hind foot of a graveyard rabbit, killed in a graveyard at midnight, in the dark of the moon."

"Whut you gwine do wid dat kin' er rabbit foot, boss?" Dave asked, suspiciously.

"I want it for a young lady up North," I said, "and she wants to use it to conjure up good luck. Can you get me one?"

"Dunno 'bout dat, boss," Dave said, hesitatingly; "dey's hard teh git. Den 'tain't give teh ebberybody teh know how teh use dem kin'. Reckin one er de common kin' won't be best fer her?"

"No," I replied. "She can use it; she is a witch (and so she is—ask her numerous admirers), and we must get her the right kind."

"Wall, boss, ef dat's de case, I reckin we 'kin' git it," Dave replied, dubiously, "but hit'll take bofe uv us."

"Why both of us? Can't you kill a rabbit by yourself?" I asked.

"Yes, sah, spec I could," Dave replied, grinning feebly. "But great heaven, boss, you sholy don' spec me teh go teh no grabeyard at midnight by myse'f; I wouldn't do it fer er million rabbit foots."

My niece, a charming young girl, had taken up a new fad, collecting good-luck charms, just prior to my departure for the South, and in her witching, imperative way demanded and obtained my promise to send her a rabbit foot.

"I want a genuine graveyard rabbit foot, Uncle—the kind the negroes believe in," she admonished me, when she kissed me good-by.

It was in pursuance of this commission that I made proposal to "Uncle" Dave, a negro black as a crow and as ragged as a scarecrow, to procure the desired pedal extremity, and the above is a fragment of the conversation that ensued. In spite of my liberal offers of payment, Dave obstinately declined to attempt alone the capture of the rabbit, and I finally agreed to bear him company.

Myriads of stars were twinkling in the clear sky, giving us a faint light when we set out. Dave at first led the way, carrying an old-fashioned muzzle-loading gun, but when we drew near our destination—a negro "burying-ground"—he skilfully executed a manœuver that placed him in the rear. The witching hour was drawing near when we took a position near the center of the yard. Dave cocked his blunderbuss, and in silence we began our watch for a rabbit.

"Yonnah one, boss," Dave suddenly whispered. "He's settin' up on top er dat new grabe."

"Well, shoot it," I said.

"Kain't hit 'im fum heah, de gun scatter so bad. Got teh git closter," Dave replied, and he began moving toward the rabbit, who was silhouetted against the eastern sky. "C-come on, b-boss," he whispered, in a frightened tone, as he noticed I was not following him.

"What are you afraid of?" I asked, impatiently, but I received no reply.

Looking up, to ascertain the cause of the negro's silence, I beheld him sitting rigid, his lower jaw hanging down, and his eyes wide open and protruding, staring wildly at a white figure that seemed rising out of the ground. For a moment he was spellbound with terror; then, as a sharp, hissing noise came from the object of his fear, he gave a blood-curdling screech, and springing to his feet, dashed madly away. The gun flew from his hands, and striking a stone, it was discharged. Its thunderous report was followed by a wailing cry, and waiting to see no more, I returned to my hotel as expeditiously as possible.

"Boss," said Dave, in a shamefaced way the next morning, as he and another negro approached me, "dis heah fool niggah 'cuses us er killin' one er his ganders an' two goslin's las' night, an' he says he's gwine teh hol' my gun fer damages."

I silently paid the damages, and if my niece has a rabbit foot in her collection you will not find my card attached to it.

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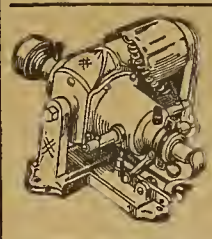

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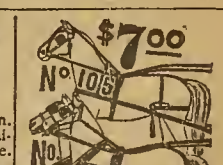

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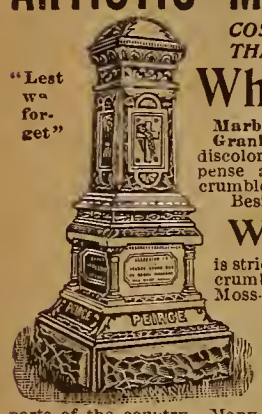

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How to Dress

AFTERNOON GOWN

AFTERNOON gowns made in blouse style are much worn, and are ideally comfortable and satisfactory at the same time that they are smart. The very stylish model illustrated is of réséda canvas etamine, with black and white pipings edging the folds, and yoke and cuffs of white overlaid with black velvet and fancy stitchings. The blouse is novel and effective, and closes beneath the central plait at the front. The yoke collar is separate, and is closed invisibly at the back. The skirt is cut in five gores, with a graduated circular flounce seamed to the edge.

VISITING-COSTUME

"Monte Carlo" coats of cloth worn over gowns of canvas and similar materials are exceedingly fashionable and handsome. The smart costume illustrated is all in gray, the skirt of canvas, the coat of smooth-faced cloth, with lace collar and stitched velvet bands, but can be reproduced in a variety of materials and in any preferred color. The skirt is novel and graceful, and is laid in horizontal tucks at intervals for its entire length.

AFTERNOON GOWN

VISITING-GOWN

"Monte Carlo" coats are among the smartest features of the season, and are much worn for church, visiting and the like. The very stylish model illustrated is in black kersey cloth, with trimming of black fox fur and black silk ornaments, and is worn over a skirt of dotted gray velveteen. All cloths, peau-de-soie and velvet, however, are appropriate. The capes are new and eminently desirable for midwinter wear.

VISITING-COSTUME

PROMENADE-SUIT

VISITING-GOWN

PROMENADE-SUIT

Costumes of fine cloth are always smart and elegant, and have the merit of suiting all daytime occasions. The elegant model illustrated is in cuirasse-gray zibeline, with bands, collar and cuffs of satin-faced cloth in black, but is appropriate for all the season's suitings. The jacket is new and smart, and shows the fashionable slot-seams, but can be made plain. The skirt is plain, and cut in five gores that flare freely below the knees.

A STYLISH SHIRT-WAIST GOWN

No model is more popular for occasions of simple dress than the shirt-waist gown. The one illustrated is made of wool canvas in Oriental red, and is stitched with black and trimmed with bands, collar and cuffs cut from silk showing an Oriental design edged with black velvet. The waist is new and admirable in every way. The tucks at the shoulders mean becoming folds. The princesse closing is always becoming, and the stole trimming is stylish in the extreme.

HATS

Hats continue about the same in shape and size, except that the immense hats are not as generally worn as those of medium sizes, and velvet leaves, flowers and fruit are as popular now as they ever were. Mortar-board hats, which appear on a few eccentric individuals, will never have a run.

Tulle bows are still very popular, probably because they are so becoming to old and young alike. They are usually worn under the chin, and are larger than those worn at the back of the neck, and very full. White is popular, but black and colors are a good deal worn.—New Orleans Picayune.

HOSIERY

Hosiery grows more and more beautiful, and since it is not easy to buy hand-embroidered hosiery, it should be a comforting thought to girls that the embroidery is nearly all done in chain-stitch, which is easy and rapid. The prettiest thing in the world is to chain-stitch small butterflies upon the lower part and the instep of black stockings, making them of several colors.—New Orleans Picayune.

CRAVATS

When you buy your husband a cravat, remember to think what he needs cravats for, and what colors suit him. A four-in-hand is intended only for morning and business wear, and should not be worn upon other occasions, while an Ascot and an English square and a Culross (or imperial) can be worn at all times, provided the colors are suitable. If you can, get several cravats, for one is only suitable for a part of the day. Any of the cravats named in dark colors, either plain or fancy, can be worn to business, but for afternoon functions the last three should be black, plain or self-figured, black with white in a neat figure or stripe, white, pearl, lavender or suede. The same styles are used for church, while for day weddings the favorite is white, although light tones or black are worn.—New Orleans Picayune.

COATS

Velvet coats have decidedly "caught on" here, and every day one sees very smart combinations of velvet and cloth, both materials dark of hue and adorned with furs. The tufted zibelines are very comfortable in appearance, and look best made in tailor style, with severely simple accessories.—McCall's Magazine.

A STYLISH SHIRT-WAIST GOWN

These patterns can be had at this office for ten cents each.

VISITING-COSTUME.—Coat No. 4174. In sizes for 32, 34, 36, 38 and 40 inches bust measures. Tucked Skirt No. 4315. In sizes for 20, 22, 24 and 26 inches waist measures.

PROMENADE-SUIT.—Jacket No. 4322. In sizes for 32, 34, 36, 38 and 40 inches bust measures. Five-gored Skirt No. 4026. In sizes for 22, 24, 26, 28, 30 and 32 inches waist measures.

AFTERNOON GOWN.—Blouse No. 4319. In sizes for 32, 34, 36, 38 and 40 inches bust measures. Five-gored Skirt No. 4075. In sizes for 22, 24, 26, 28, 30 and 32 inches waist measures.

VISITING-GOWN.—"Monte Carlo" Coat No. 4308. In sizes for 32, 34, 36, 38 and 40 inches bust measures. Nine-gored Skirt No. 4134. In sizes for 22, 24, 26, 28 and 30 inches waist measures.

SHIRT-WAIST GOWN.—Waist No. 4317. In sizes for 32, 34, 36, 38 and 40 inches bust measures. Nine-gored Skirt No. 4134. In sizes for 22, 24, 26, 28 and 30 inches waist measures.

The Young People

NED'S STROKE OF BUSINESS

BY L. M. MONTGOMERY

"JUMP in, Ned; I can give you a lift if you're going my way." Mr. Rogers reined up his prancing gray horse, and Ned Allen sprang lightly into the comfortable cutter. The next minute they were flying down the long, glistening road, rosy-white in the sunset splendor. The first snow of the season had come, and the sleighing was, as Ned said, "dandy."

"Going over to Windsor, I suppose," said Mr. Rogers, with a glance at the skates that were hanging over Ned's shoulder.

"Yes, sir; all the Carleton boys are going over to-night. The moon is out, and the ice is good. We have to go in a body, or the Windsor fellows won't leave us alone. There's safety in numbers."

"Pretty hard lines when boys have to go six miles for a skate," commented Mr. Rogers.

"Well, it's that or nothing," laughed Ned. "There isn't a saucerful of ice any nearer, except that small pond in 'Old Dutcher's' field—behind his barn. And you know 'Old Dutcher' won't allow a boy to set foot there. He says they would knock down his fences climbing over them, and like as not set fire to his barn."

"'Old Dutcher' was always a crank," said Mr. Rogers, "and doubtless will be to the end. By the way, I heard a rumor to the effect that you are soon going to take a course at the business college in Trenton. I hope it's true."

Ned's frank face clouded over. "I'm afraid not, sir. The truth is, I guess mother can't afford it. Of course, Aunt Ella has very kindly offered to board me free for the term, but fees, books and so on would require at least fifty dollars. I don't expect to go."

"That's a pity. Can't you earn the necessary money yourself?"

Ned shook his head. "Not much chance for that in Carleton, Mr. Rogers. I've cudgeled my brains for the past month trying to think of some way, but in vain. Well, here is the cross-road, so I must get off. Thank you for the drive, sir."

"Keep on thinking, Ned," advised Mr. Rogers, as the lad jumped out; "perhaps you'll hit on some plan yet to earn that money, and if you do—well, it will prove that you have good stuff in you."

"I think it would," laughed Ned to himself, as he trudged away. "A quiet little farming village in winter isn't exactly a promising field for financial operations."

At Winterby Corners Ned found a crowd of boys waiting for him, and soon paired off with his chum, Jim Slocum. Jim, as usual, was grumbling because they had to go all the way to Windsor to skate.

"Like as not we'll get into a free fight with the Windsorites when we get there, and be chevied off the ice," he complained.

The rivalry which existed between the Carleton and the Windsor boys was bitter and of long standing.

"We ought to be able to hold our own to-night," said Ned. "There'll be thirty of us there."

"If we could only get 'Old Dutcher' to let us skate on his pond!" said Jim. "It wouldn't hurt his old pond! And the ice is always splendid on it. I'd give a lot if we could only go there."

Ned was silent. A sudden idea had come to him. He wondered if it were feasible. "Anyhow, I'll try it," he said to himself. "I'll interview 'Old Dutcher' to-morrow."

The skating that night was not particularly successful. The small pond at Windsor was crowded, the Windsor boys being out in force, and although no positive disturbance arose, they contrived to make matters unpleasant for the Carletonites, who tramped moodily homeward in no very good humor, most of them declaring that, skating or no skating, they would not go to Windsor again.

The next day Ned Allen went down to see Mr. Dutcher, or "Old Dutcher," as he was universally called in Carleton. Ned did not exactly look forward to the interview with pleasure. "Old Dutcher" was a crank—there was no getting around that fact. He had "good days" occasionally, when, for him, he was fairly affable, but they were few and far between, and Ned had no reason to hope that this would be one. "Old Dutcher" was unmarried, and his widowed sister kept house for him. This poor lady had a decidedly lonely life of it, for "Old Dutcher" studiously discouraged visitors. His passion for solitude was surpassed only by his eagerness to make and save money. Although he was well-to-do, he would wrangle over a cent, and was the terror of all who had ever had dealings with him.

Fortunately for Ned and his project, this did turn out to be one of "Old Dutcher's" good days. He had just concluded an advantageous bargain with a Windsor cattle-dealer, and hence he received Ned with what, for "Old Dutcher," might be called absolute cordiality. Besides, although "Old Dutcher" disliked all boys on principle, he disliked Ned less than the rest because the boy had always treated him respectfully and had never played any tricks on him on Hallowe'en or April Fool's Day.

"I've come down to see you on a little matter of business, Mr. Dutcher," said Ned, boldly and promptly. It never did to beat about the bush with "Old Dutcher;" you had to come straight to the point. "I want to know if you will rent your pond behind the barn to me for a skating-rink."

"Old Dutcher's" spect was certainly not encouraging. "No, I won't. You ought to know that. I never allow any one to skate there. I ain't going to have a parcel of whooping, yelling youngsters tearing over my fences, disturbing my sleep at nights, and like as not setting fire to my barns. No, sir! I ain't going to rent that pond for no skating-rink."

Ned smothered a smile. "Just wait a moment, Mr. Dutcher," he said, respectfully. "I want you to hear my proposition before you refuse definitely. First, I'll give you ten dollars for the rent of the pond; then I'll see that there will be no running over your fields and climbing your fences, no lighting of fire or matches about it, and no 'whooping and yelling' at nights. My rink will be open only from two to six in the afternoon and from seven to ten in the evening. During that time I shall always be at the pond to keep everything in order. The skaters will come and go by the lane leading from the barn to the road. I think that if you agree to my proposition, Mr. Dutcher, you will not regret it."

"What's to prevent my running such a rink myself?" asked "Old Dutcher," gruffly.

"It wouldn't pay you, Mr. Dutcher," answered Ned promptly. "The Carleton boys wouldn't patronize a rink run by you."

"Old Dutcher's" eyes twinkled. It did not displease him to know that the Carleton boys hated him. In fact, it seemed as if he rather liked it.

"Besides," went on Ned, "you couldn't afford the time. You couldn't be on the pond for eight hours a day and until ten o'clock at night. I can, as I've nothing else to do just now. If I had, I wouldn't have to be trying to make money by a skating-rink."

"Old Dutcher" scowled. Ten dollars was ten dollars, and, as Ned had said, he knew very well that he could not run a rink by himself. "Well," he said, half reluctantly, "I suppose I'll let you go ahead. Only remember I'll hold you responsible if anything happens."

Ned went home in high spirits. By the next day he had placards out in conspicuous places—on the school-house, at the forge, at Mr. Rogers' store and at Winterby Corners—announcing that he had rented Mr. Dutcher's pond for a skating-rink, and that tickets for the same at twenty-five cents a week for each skater could be had upon application to him.

Ned was not long left in doubt as to the success of his enterprise. It was popular from the start. There were about fifty boys in Carleton and Winterby, and they all patronized the rink freely. At first Ned had some trouble with two or three rowdies, who tried to evade his rules. He was backed up, however, by "Old Dutcher's" reputation and by the public opinion of the other boys, as well as by his own undoubted muscle, and soon had everything going smoothly. The rink flourished amain, and everybody, even "Old Dutcher," was highly pleased.

At the end of the season Ned paid "Old Dutcher" his ten dollars, and had plenty left to pay for books and tuition at the business college in Trenton. On the eve of his departure Mr. Rogers, who had kept a keen eye on Ned's enterprise, again picked him up on the road.

"So you found a way, after all, Ned," he said, genially. "I had an idea you would. My bookkeeper will be leaving me about the time you will be through at the college. I will be wanting in his place a young man with a good nose for business, and I rather think that you will be that young man. What do you say?"

"Thank you, sir," stammered Ned, scarcely believing his ears. A position in Mr. Rogers' store meant good salary and promotion. He had never dared to hope for such good fortune. "If you—think I can give satisfaction—"

"You manipulated 'Old Dutcher,' and you've earned enough in a very slow-going place to put you through your business-college term, so I am sure you are the man I'm looking for. I believe in helping those who have 'gumption' enough to help themselves, so we'll call it a bargain, Ned."

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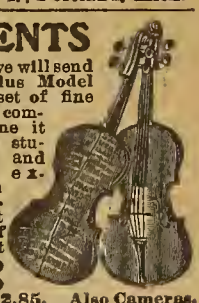

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Announcement of $1,000.00 Crop-Growing Contest

Last spring the Farm and Fireside offered for the exclusive use of its readers three sets of prizes, 315 prizes in all, amounting to $1,000, as follows: FIRST SET OF PRIZES, for raising greatest weight of seed-corn, second greatest, third greatest, etc., from one pound of Finest Thoroughbred Seed-Corn furnished by us. SECOND SET OF PRIZES, for raising the greatest number of pods, second greatest, third greatest, etc., from one half pound of a new variety Matchless Stringless Beans furnished by us. THIRD SET OF PRIZES, for growing the greatest number of roses, second greatest, third greatest, etc., on Three Fine Rose-Bushes furnished by us. These rose-bushes, seed-corn and beans were given away in connection with subscriptions to the Farm and Fireside.

Contestants were allowed to enter all three contests if they chose, and hundreds and hundreds became subscribers to the Farm and Fireside in order to avail themselves of this great opportunity. They kept all they raised, and either sold it or ate it, or are holding it as seed to plant next season.

We are pleased to announce herewith the lucky prize-winners—lucky not because of any "luck" about it, but because they did all they could in the preparation and cultivation of their plants to produce every possible result, as some of the accounts below attest, showing that all who entered the contest could have secured better results than they did had they given their plants the same care and thought and culture.

CORN-RAISING CONTEST

For raising the greatest weight of Seed-Corn from one pound of Golden Harvest Yellow Dent Corn furnished by us

	Pounds	Ounces
1st Prize—$100.00 Cash, Geo. R. Shaw, Clemson College, South Carolina	1,655	
2d Prize—Fine Piano-Box Buggy, value $60.00, W. A. Kitch, R. D. 3, Mercer, Pennsylvania	1,490	8
3d Prize—Latest Improved Spring-Tooth Harrow, value $20.00, Don O. Baird, Russellville, Ohio	1,400	10
4th Prize—Set Solid Leather Buggy-Harness, value $15.00, R. H. Silvy, Soloman, Illinois	1,283	11
5th Prize—Latest-Make Breaking-Plow, value $10.00, H. M. Palmer, R. D. 5, Cadiz, Ohio	1,206	10

50 Prizes—Handsome Engraved Watch to each, value $2.00:

H. E. Alford, 850 pounds; R. C. Beall, 810 pounds; Orville Beane, 812 pounds; Sophia J. Beard, 780 pounds; Alfred Beardsley, 847 pounds; J. W. Beers, 939 pounds; Henry Blum, 723 pounds; W. E. Bishop, 740 pounds; Henry W. Boggs, 813 pounds; Fred. Carter, 840 pounds; Mrs. U. G. Clifford, 875 pounds; Andrew J. Cockrum, 886 pounds; Daniel Cotton, 754 pounds; Isaac Crites, 1,084 pounds; M. L. Fidler, 803 pounds; D. W. Gibbon, 730 pounds; Howard Gibbs, 732 pounds; Jno. L. Gronuinger, 864 pounds; Richard H. Hinde, 889 pounds; Jno. Hoohler, 775 pounds; Albert Hopkins, 1,024 pounds; Carl R. Horne, 818 pounds; Frank Hrenchir, 720 pounds; A. J. Huber, 912 pounds; H. D. Hutcheson, 960 pounds; Henry Lipe, 736 pounds; W. E. Loar, 948 pounds: Hattie Luther, 1,020 pounds; W. D. Marshall, 722 pounds; Lydia A. Maus, 754 pounds; Ezra R. Mix, 930 pounds; Elmer Mulig, 928 pounds; Alice Needham, 826 pounds; Arch Osborne, 891 pounds; C. W. Pier, 840 pounds; Ralph H. Remiugtou, 743 pounds; J. L. Ridenhour, 735 pounds; Geo. W. Rock, 743 pounds; Commodore Rodgers, 742 pounds; Guy Root, 767 pounds; M. C. Scott, 747 pounds; D. R. Sbimp, 1,002 pounds; Carrie J. Tucker, 897 pounds; Jno. E. Tull, 1,094 pounds; Mrs. Henry Vincent, 850 pounds; J. S. Warfield, 962 pounds; L. C. West, 961 pounds; Claus Wiese, 841 pounds; Jos. Wolf, 1,025 pounds; Fred. Wolf, 768 pounds.

50 Prizes—Solid Steel Wagon-Jack to each, value $1.25:

Mrs. D. S. Applegate, 668 pounds; Mrs. G. A. Armbruster, 683 pounds; Mrs. C. B. Asblock, 626 pounds; J. W. Barker, 639 pounds; Samuel Beck, 624 pounds; G. F. Beverly, 642 pounds; G. H. Birchley, 700 pounds; W. J. Boyle, 704 pounds; B. F. Brockman, 609 pounds; Mary Bushelman, 711 pounds; T. A. Clemans, 633 pounds; Wm. Curp, 702 pounds; Wesley Dirr, 659 pounds; Jeremiah Ebaugh, 625 pounds; Mrs. Martha M. Evans, 669 pounds; Susan A. Fisher, 639 pounds; Mrs. Mary E. Gibson, 718 pounds; Geo. Goodchild, 650 pounds; Creta Hartman, 605 pounds; R. H. Havner, 642 pounds; Samuel L. Hawes, 616 pounds; Mrs. Noah Henry, 654 pounds; J. A. Jamison, 635 pounds; Don F. Kennedy, 700 pounds; Mary Lenninger, 621 pounds; S. B. Loury, 641 pounds; Mrs Lizzie B. McEwen, 666 pounds; Chas. Minick, 624 pounds; J. A. Ryckman, 631 pounds; F. M. Saunders, 661 pounds; W. S. Schaffer, 620 pounds; Mrs. Janet Schreeh, 651 pounds; David T. Schwaderer, 660 pounds; Geo. E. Searned, 638 pounds; Mrs. D. M. Smutz, 621 pounds; Martin Snyder, 666 pounds; Mrs Sallie Stanfield, 622 pounds; Harry E. Steiger, 632 pounds; Nathan Steiner, 637 pounds; Heleua Stelter, 607 pounds; Mary E. Sutton, 640 pounds; Alfred Titus, 693 pounds; S. W. Van Ansdall, 671 pounds; I. N. Wade, 623 pounds; Nicbolas Wagner, 698 pounds; S. J. Wahl, 620 pounds; M. H. Walker, 623 pounds; Mrs. G. W. Walker, 610 pounds; D. J. Wollet, 610 pounds; Mary E. Woodward, 649 pounds.

How Mr. Geo. R. Shaw Secured such Phenomenal Results:

"I planted the corn in two plots. Plot No. 1.—The soil was second branch hottom, hrown clay subsoil, on path leading from Calhoun to Clemson College, situated in Pickens County, S. C. This plot was sowed with oats in October, 1901, the oats heing killed hy tbe winter frosts. During March, 1902, this plot was harrowed and cross-harrowed with a one-borse, 14-tooth steel harrow. April 26th it was plowed about six iuches deep with a diamond-pointed gopher on an iron foot-stock. April 28th, rehroke tbis plot with Boy Dixie, ahout eigbt inches deep. April 29tb, harrowed and cross-harrowed witb one-horse harrow, and marked off rows in cbecks four feet each way. April 30tb, planted 750 hills, one grain to each. Dropped corn hy hand, one kernel in each check, putting one handful of stable manure on each side of tbe checks, and dropping one thimbleful of high-grade acid phosphate to every bill, covering corn and manure witb rakes. Seven days after planting I raked over every hill, to facilitate an even stand and make a dust-mulch for the corn to retain the moisture. In ten days after planting I had 697 hills of corn. In the meantime corn was plowed twice with one-horse five-plow cultivator. Hoed it twice with iron-tooth rake. Plowed second time June 6tb. Plowed third time June 21st, and fourth aud last time July 2d, hoth times with heel-scrape and gopher. Hoed July 15th. Tbis was the last work done to Plot No. 1. August 15th there was on Plot No. 1 697 stalks with one to tbree ears to the stalk. On August 29th corn was well matured and ripe, and I stripped the fodder off. Plot No. 2.—Land located on Seneca River, situated in Pickens County, one mile from Clemson College. Color of land dark, sandy loam. Was planted in corn and peas iu 1901, subject to overflow at bigh water. May 9th, hroke soil with half-sbovel as deep as one horse could pull it. May 15th, marked off rows four feet apart, and hedded with Boy Dixie. Opened heds with half-shovel. Planted 679 kernels of corn, dropping corn hy hand, and putting one kernel in a place, ahout two feet apart in the drill. Covered with two furrows, using an iron-foot plow-stock with gopher plow. After finishing the planting, I then ran over tbe ridges that were made hy the two furrows covering the corn with a hoard, that knocked off all clods, making the heds where corn was perfectly smooth. May 24th there were 653 stalks. May 29th, plowed with a one-horse five-plow cultivator. June 1st, hoed first time; June 25th, plowed with heel-scrape and gopher; June 30tb, hoed; July 2d, plowed with heel-scrape and gopher. Corn was ripe on August 30th. Gathered October 22nd, husked Monday, October 27th, shelled and weighed October 31st, 1902. Yield on Plot No. 2 was ahout double that on Plot No. 1. The majority of stalks of Plot No. 2 had three ears, average nine ounces."

Mr. R. H. Silvy, who won the Fourth Prize, writes:

"I selected as good a piece of land as I could for the experiment. I took a piece of high, creek-hottom land, the soil consisting of a black, sandy loam—tbe same having heen planted to melons for the last two years—aud cultivated with a great deal of care, not allowing a weed-seed to mature. The ground had heen well fertilized for the past two years, hut before breaking for corn last spring I covered it ahout two inches deep witb rotten stable manure mixed with poultry-droppings. I then turned tbis under with my plow about five incbes deep. The ground had not heen tramped, except what the team did in scattering tbe manure over it. This caused some clods. Before the clods had time to dry and harden I placed a harrow on, and thorougbly pulverized them. On May 2d I took an old-fashioned single-shovel plow, and marked out tbe ground, making the rows about four feet apart and about two and a balf inches deep. Along these furrows I dropped my corn hy hand, placing two grains in a hill, but always keeping those two grains some three or four inches apart. The dropping heing done, I took my hoe, and covered the corn with nice, fine, moist soil. In tbe meantime, if I found a small clod I pulverized it with my hoe. This heing done, in a few days the corn was peeping tbrough the ground. As soon as it all got up, I hegan working it hy sifting fine, moist dirt in around tbe roots. This I did a time or two hefore I had it plowed. I allowed no weeds in sight. I had left plenty of space at the ends for turning without hreaking down any corn. I had it plowed four times, and carefully hoed many times. I planted it near the creek, so that if any moisture was lacking I could supply it. But if anything we had a little too much moisture for corn last year. I added some to the weight of my corn hy cultivating some of the most healthy looking suckers, ohtaining some ears six inches long from the tops. This would not do in a dry season. Your Golden Medal Yellow Dent Corn is a splendid corn. Mine was fit to crib ahout the middle of Septemher."

Another Prize-Winner says:

"We planted several kinds of corn, but the Golden Harvest Yellow Dent Corn was far ahead of all the rest. It is the beaviest yielder that I ever saw. We shall plant it next year."

BEAN-RAISING CONTEST

For growing the greatest number of Pods of Beans on plants grown from one half pound of Matchless Stringless Beans furnished by us

	No. Pods
1st Prize—$100.00 Cash, Alice Needham, Pfafftown, North Carolina	155,360
2d Prize—Set Elegant Parlor Furniture, value $50.00, Caroline Miller, Unionridge, West Virginia	84,941
3d Prize—Latest-Make Double Cultivator, value $20.00, Henry J. Werner, Mt. Pleasant, Michigan	78,227
4th Prize—Library of 50 Cloth-Bound Books, value $20.00, Mrs. Lula A. Davison, Elkland, Missouri	71,412
5th Prize—Library of 25 Cloth-Bound Books, value $10.00, Elmer Mulig, R. D. 3, Waco, Nebraska	64,977

50 Prizes—Handsome Dial-Scale to each, value $1.25:

Jos. M. Anders, 35,475 pods; Geo. W. Atkins, 33,147 pods; Alexander Berry, 35,044 pods; W. J. Boyle, 30,015 pods; Elha L. Brown, 43,021 pods; Dollie Cecil, 27,763 pods; Lizzie Ethridge, 40,513 pods; Millie Eyman, 33,869 pods; E. J. Gibson, 37,254 pods; Maggie L. Gresham, 42,508 pods; Hans Hagge, Jr., 38,969 pods; Harry S. Harbolt, 39,796 pods; Mrs. G. B. Harker, 28,392 pods; R. O. Heinker, 34,361 pods; Mrs. E. R. Hemming, 34,711 pods; Mrs. Martha Hodge, 51,894 pods; H. D. Hutcheson, 31,402 pods; Maggie Jobns, 27,079 pods; Martha Johnson, 29,281 pods; Alfred W. Kocher, 39,550 pods; W. H. Lightfoot, 27,500 pods; Mrs. E. A. McBride, 27,748 pods; Mrs. S. R. McCuiston, 29,752 pods; Lizzie McDonnell, 30,879 pods; Malcolm McNeill, 31,449 pods; J. B. Marange, 27,033 pods; W. G. Martin, 32,200 pods; Chas. Minick, 37,989 pods; J. T. Mitcbell, 33,047 pods; Vietta Morehead, 40,726 pods; May Neel, 46,670 pods; Jobn Parks, 28,202 pods; Geo. A. Proctor, 36,880 pods; John E. Randle, 35,129 pods; Emeline A. Reed, 26,831 pods; Hosea Ripley, 27,324 pods; Geo. E. Robison, 38,427 pods; Mrs. James Sailors, 63,751 pods; Sophia Schneck, 33,563 pods; Jennie Seymour, 35,075 pods; Mrs. Susan E. Stevens, 54,000 pods; Blanch Stewart, 34,131 pods; Jno. A. Stoner, 43,216 pods; Mrs. E. R. Thallhimer, 28,732 pods; C. I. Trowhridge, 27,936 pods; Mrs. Mary E. Wallace, 29,614 pods; May Waller, 38,909 pods; Louis A. Wartman, 33,329 pods; Mrs. I. H. Watt, 47,675 pods; C. J. Whitington, 42,884 pods.

50 Prizes—Set of Six Finest Silver-Plated Teaspoons, Engraved Initials, to each, value $1.00 each set:

Mrs. James Brierly, 20,216 pods; P. G. Bruce, 21,072 pods; Mrs. Agnes Burke, 25,021 pods; Mrs. Helen Clapsaddle, 23,410 pods; Mrs. A. D. Clark, 22,269 pods; C. E Craig, 20,509 pods; Arthur U. Dickson, 20,278 pods; Emma Dodd, 25,258 pods; Amanda Eneck, 22,899 pods; Frank B. Enlow, 26,827 pods; A. E. Flickinger, 19,656 pods; Mrs. Martha Furrow, 20,132 pods; G. W. Grandon, 19,146 pods; Chas. Headland, 20,596 pods; O. P. Hitchings, 19,947 pods; F. R. Holt, 20,195 pods; E. E. Hoskins, 22,694 pods; N. E. Humphrey, 20,245 pods; Mrs. Mary Hutcbison, 21,658 pods; Mrs. J. C. Jagger, 20,633 pods; Mary E. Jaquith, 19,558 pods; H. L. Keigbley, 22,289 pods; Mrs. L. A. Little, 23,555 pods; Hattie Luther, 25,604 pods; Mrs Rhoda McCreary, 23,293 pods; Mary A. Moak, 19,794 pods; C. L. Mosteller, 21,505 pods; Allen O. Myers, 24,253 pods; Miranda Palmer, 22,242 pods; Mrs. Almira Partce, 21,173 pods; J. C. Pate, 19,352 pods; Mrs. L. H. Phillips, 25,942 pods; H. C. Powel, 24,238 pods; F. O. Richards, 21,855 pods; Fordham Salley, 23,997 pods; Mrs. Cbrist. Schwartz, 20,204 pods; Mrs. A. L. Slaten, 22,880 pods; Mrs. J. F. Smith, 21,935 pods; Sarah E. Smith, 19,655 pods; Helena Stelter, 19,427 pods; Nancy C. Stevens, 22,954 pods; Effie Todd, 19,804 pods; Samuel Walhorn, 22,441 pods; Mrs. I. S. Wells, 23,211 pods; Mrs. R. Wenzel, 26,060 pods; Mrs. Julia H. Wbelpley, 19,128 pods; E Sterling Windes, 25,527 pods; Mrs. Jennie Withrow, 23,608 pods; Mrs. David Wolfe, 20,579 pods; Mrs. F. A. Yingst, 23,202 pods.

Miss Alice Needham, the First-Prize Winner, writes:

"Our ground is what we call second-hottom or table land, and is always moist. In the first place it is as rich as it well can be, and we manured it in February just as we always do, with pulverized and well-rotted stable manure, at the rate of forty loads to the acre, and then with a one-horse turn-plow turned it in good and deep, and then let it rest until some time in April, and then took the same plow and turned it again. Next took a two-horse Dixie barrow and harrowed it over several times, and then left it until May. During the first days of May took a one-horse double shovel and broke it again, and then took the same harrow and barrowed it until it was fine and light. Next took a one-horse single shovel, and laid it off in rows three feet apart. Tben took a mixture of one part strong wood-ashes and two parts litter from the poultry-house, mixed it thoroughly, and hilled it heavily in this furrow, aud then took the same plow and covered it up hy running one furrow on each side. Next I raked the ridges down until they were smooth and flat, then took a mattock and opened the ridges about three inches deep, and then I took a good commercial tobacco fertilizer and hilled it in at the rate of six hundred pounds to the acre, and hoed and mixed it well with the dirt Dropped heans two in the hill, eighteen inches apart, and covered them by hand. As soon as tbey were up I worked them out nicely with a small hoe, and in about four days hoed tbem again. This I did twice a week until they were ahout two weeks old. Took a one-horse cultivator, and broke out the middle. I still kept up hoeing twice a week until they hegan to bloom, then took a double shovel and hroke tbe middle again. Then I ridged tbem up with a boe, and quit tbem. I sprayed them three or four times a week during tbe first month with a solution prepared as follows: To four gallons of water add one and one balf pounds of strong lye-soap; boil two hours, then remove from fire; add one pint of kerosene oil, and stir well. I did my spraying after sundown. I kept the grass all pulled out of my beans with my bands during tbe picking-season. I picked my first heans from them June 10th, and tbey bore profusely the halance of the summer and fall. The fall has been very favorahle for the heans. They commenced bearing ahout the 10th of June, and put out new shoots, and kept hearing all sumnier and fall, and there are several pods on the vines to-day, and some have dried up since making the report."

Mrs. Caroline Miller, who was the Second Lucky One, says:

"I planted them about the 25th of May on a creek-hottom, this soil heing very rich. No fertilizer was used this year, but it bad been enriched previous years with stahle manure, wood-ashes and compost. The ground was plowed and harrowed; after that it was hoed until it was thoroughly pulverized. Then I marked off the rows two feet apart, running east and west. I planted the heans a foot apart, one hean in a hill, and covered them very carefully one or two inches deep. Nearly all came up. Soon after I hegan to hoe them tboroughly every few days until they were in full hloom and almost covered the ground. As soon as they were large enough for tahle use, I hegan the picking, taking care to do no injury to the plants, and to get all that were large enough. Tbe first picking yielded nearly 6,000 pods. The patch was picked ten times, the fifth giving the greatest number of pods—a few over 32,000. Care was taken to let none get ripe, with the exception of one pod on each plant for seed. I watered the heans during a dry spell, pouring water between the rows hy the bucketful. I kept the weeds pulled up throughout the season. My beans were still tbrifty and bearing when frost came. I picked several hundred pods in November after tbe tops of plants had heen frost-hitten. Only a few had died during the summer. I picked nearly 85,000 pods from this patch. Many of them were very large, being the largest hush-hean I ever saw. We had green heans to use for over four months. We dried a quantity for winter use, sold a few bushels, gave some away to our neigbbors, cooked quite a lot to feed to pigs and chickens, and have four pints of seed-heans. I attrihute my success in this to the productiveness of the variety of beans furnished hy the FARM AND FIRESIDE, to the fertility of the soil, to supplying water when needed, and to the careful and frequent picking of the heans."

Mrs. Lula A. Davison, who was the Fourth-Prize Winner, shows what Pains and Care will do:

"I planted tbe Prize Beans that I received from tbe FARM AND FIRESIDE last spring in an old garden tbat had been manured every year for several years past. First, I had tbe garden hroke, then marked off iu deep furrows; then carried well-rotted chicken-manure, and strewed along in the furrows. Planted the beans, put chicken-manure on tbem, and then covered with garden-soil. I commenced tending them with hoe as soou as they came up. Began eating them as soon as they were large enough, counting pods for each mess, and setting down the number. Tbey kept hlooming and bearing almost all summer, as tbere was so mucb rain, and when final gatbering-time came we had a large crop of dry beans. *They out yielded any beans I ever raised, but never did I take such pains before.*"

[CONTINUED ON NEXT PAGE]

ROSE-GROWING CONTEST

For growing the greatest number of Roses on three Rose-Bushes furnished by us

	No. Roses
1st Prize—$100.00 Cash, Mrs. W. D. Clark, Troy, North Carolina	397
2d Prize—Set Handsome Dining-Room Furniture, value $50.00, Mrs. Viola Goodwin, Albertville, Alabama	344
3d Prize—Ball-Bearing Sewing-Machine, value $30.00, Mrs. Ada L. Holden, Casco, Maine	342
4th Prize—Complete Decorated China Dinner-Set, value $12.00, Mrs. J. H. Bridges, Richville, Missouri	340
5th Prize—Splendid Kitchen-Cabinet, value $7.50, Alice Needham, Pfafftown, North Carolina	309

50 Prizes—Beautiful Cut-Glass, Sterling-Silver Top Salt and Pepper Set to each, value $1.25 the set:

Lillian Bain, 167 roses; Mrs. Laura Bain, 223 roses; Walter Baiu, 146 roses; F. W. Baird, 167 roses; Fannie Bodenhamer, 216 roses; Rev. V. Y Boozer, 155 roses; Mrs. Jno. Briggs, 207 roses; Mrs. Eugene Burr, 209 roses; H. S. Calkins, 178 roses; E. L. Cline, 157 roses; Mrs. A. E. Crute, 150 roses; Frank O. Curtiss, 133 roses; Mrs. America B. Folger, 245 roses; Mrs. Arthur Foster, 249 roses; Thos. Golden, 209 roses; J H. B. Grennin, 160 roses; Mrs. Louise M. Hallock, 165 roses; Mrs. O. W. Hammond, 141 roses; Naomi T. Hockett, 118 roses; Mrs. Emma Holman, 308 roses; Mrs. C. Jackson, 121 roses; A. A. Larason, 145 roses; C. Lender, 137 roses; Mrs Baldwin Loy, 117 roses; Hattie Luther, 215 roses; Mrs. A. T. Morgan, 198 roses; Mrs. W. H. Moxley, 212 roses; Mrs. E. G. Niestrath, 264 roses; Mrs. Florence Painter, 144 roses; Mrs Stella Parker, 227 roses; Mrs. C. E. Parmenter, 127 roses; Mrs. W. E. Peay, 159 roses; M. H, Penton, 179 roses; Mrs. Jno. Peterson, 157 roses; Nora Phillips, 152 roses; J. C. Sampson, 140 roses; C. R. Spangler, 213 roses; Blanch Stewart, 160 roses; Mrs. Laura E. Stoltz, 126 roses; Mrs. Jno. Strasser, 129 roses; Mrs. Annie Treadaway, 171 roses; Mrs Emma Vowles, 207 roses; Mrs. Mary F. Weir, 206 roses; F. L. Wells, 165 roses; Mrs. Claus Wiese, 147 roses; Mae Wilke, 150 roses; E. Williams, 246 roses; Mrs. J. R. Word, 162 roses; Mrs. D. B. Wrinkle, 149 roses; Mrs. J. B. Wynne, 248 roses.

50 Prizes—Silver-Plated Butter-Knife and Silver-Plated Sugar-Shell, the set of two to each, value $1.00 the set:

Albert Allen, 105 roses; Etta Barfield, 82 roses; Zella A. Barr, 115 roses; Mrs. G. R. Berryman, 114 roses; Nancy J. Binford, 89 roses; Mrs. Ellenette Booth, 80 roses; W. J. Boyle, 88 roses; C. H. Cleveland, 97 roses; Annie Crutcher, 99 roses; Mrs. J. J. Curtis, 104 roses; Mrs. Sadie Eatou, 79 roses; F. W. Foss, 87 roses; Mrs. A. M. French, 89 roses; Louisa Sarah Fuller, 111 roses; Mrs. Wakie Giles, 110 roses; Frank T. Gray, 90 roses; Mrs. Eliz. Grimsley, 102 roses; W. D. Henderson, 99 roses; Mrs. C. M. Hornsley, 80 roses; J. M. Hutchison, 99 roses; Mrs. Georgiana Ledbetter, 81 roses; Mrs. Alice Lewis, 78 roses; Mrs. G. E. Lytle, 111 roses; Grace McPherson, 86 roses; Nellie Meyer, 105 roses; S. F. Moorhead, 88 roses; Mrs. Jno. H. Moose, 108 roses; Mrs. J. H. Pahlmann, 78 roses; Mrs. P. F. Reinheimer, 99 roses; Mrs. Ada Rickel, 110 roses; Mrs. Wm. Ryan, 79 roses; Mrs. Lydc Seal, 97 roses; Mrs. Delia Shackelford, 85 roses; Edward Smith, 112 roses; Mrs. Adda Smith, 103 roses; Mary B. Stillings, 115 roses; Mrs. L. E. Stimus, 86 roses; W. H. Stowe, 113 roses; Mrs. W. J. Strawn, 77 roses; Mary E. Strong, 108 roses; Mary E. Sutton, 103 roses; Martha A. Thomas, 76 roses; Jno. L. Tburman and wife, 112 roses; Mrs. Mary Tilley, 96 roses; Effie Todd, 83 roses; Mary Tucker, 95 roses; Mrs. Alice Vaughn, 107 roses; E. E. Watkins, 110 roses; Mrs. T. B. Wilson, 92 roses; R. B. Younkin, 83 roses.

What Mrs. Viola Goodwin did to her Rose-Bushes to have them Bear so Profitably:

"My roses arrived about the 10tb of May, and as they were still very young and tender, I put tbem out iu boxes, filling tbe boxes with rich woods-eartb and sand. Made a cavity in center of each box, placed the roses iu, and covered the roots with water. After the dirt had taken up all the water, I covered the roots, pressing the dirt gently to the roots. Set them in shade, protected from the direct rays of sun for tbree days, after whicb I allowed the morning and evening sun to strike them, but never tbe noonday sun. After roses began to grow I filled boxes up again (the dirt having sank in the meantiue about two incbes) with well-rotted manure from my cow-stables. Watered my roses each day after sunset. I was always particular to give them an ahundant supply of water on Saturdays (to do them over until Mondays), and once each week I watered them with soap-suds from my wash-house, taking care that none of the suds struck the foliage. I worked the soil up well around plants once or twice a week, using a common table-fork My roses at this writing are near three feet high and so nice and bushy, and what is best of all, they are full of buds that will delight us all at the Merry Christmas-time. I have the roses in my 'flower-pit' in the garden to protect them from frost and cold. I am very proud, indeed, of my roses, as they are the admiration and wonder of all wbo see tbem. The roses alone are rightly worth the 50 cents I paid for them, to say notbing of the most excellent paper, the FARM AND FIRESIDE, to wbich I have been a subscriber since I was a wee girl."

Mrs. Ada L. Holden writes she was "Well Repaid:"

"First, the ground is a deep, rich soil with a soutbern exposure, well protected on the nortb by the building. I dug the holes about three feet deep, aud filled in for ahout eighteen inches with pieces of brick and rocks for drainage; tben filled in with equal proportions of well-rotted sbeep and stahle manure and good, rich soil and sharp sand. Then, after soaking the rose-bushes in lukewarm water for about four hours, I carefully spread out all tbe roots, and sifted tbe soil around them, pressing it firmly down; tben I gave tbem a thorougb drencbing with soap-suds, and piuched off the tops of branches, and they were ready to grow; and, oh, my! didn't they grow and bloom? They were the pride and joy of my beart all summer. Once a week I watered them with liquid manure made by pouriug boiling water on equal quantities of sbeep and hen manure, and allowing it to cool. It should be about the color of weak tea. I was careful not to get any on the leaves, but poured it around tbe roots. Tben three times a week I gave them a good showering with soap-suds, and I always picked the roses as soon as they matured, for they hloom a great deal more tban if they are allowed to fade on the busbes. As soon as there was any danger from frost I threw an old blanket over them at night, and left it over them until all the frost was gone in the morning. I am a great lover of flowers, and generally have very good luck with them, but tbese tbree rose-busbes bave given me tbe most satisfaction of any husbes of their size I bave ever had. They well repaid me for all tbe care I gave them, for they were covered with roses and buds the wbole season, to say nothing of my winning third prize in the contest."

Mrs. J. H. Bridges gives a Good Reason for her Success:

"Wbat I consider tbe most important was: As soon as the roses were in full bloom I cut tbem off witb a sharp knife—all except the August hlooming—and that would cause tbem to branch out more rapidly, and I tbink caused more roses to appear."

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Wit and Humor

THE PIG AND THE MONGOOSE

THE Pig, suffering from over-assimilation, went to the Mongoose, who is esteemed to have the gift of healing above all animals. In his mouth he carried two fat snakes as an offering to that sagacious creature.

"I'm feeling dreadfully ill," groaned the Pig. "I can't think what's the matter with me."

The Mongoose saw what it was with a glance, but he knew better than to offend the Pig by telling him. So he remarked, with an assumption of solemn sympathy, "Tut, tut; you do look bad, and no mistake. I see what it is. You are run down. We must do something to pick you up."

"I felt as if a little change to—say the truffle-grounds of Périgord, would do me good," suggested the Pig.

"The very thing," replied the Mongoose. "You could not have mentioned a more suitable resort. I recommend you go there at once."

"I will do so," answered the Pig, delighted thus to have his suggestion confirmed by so wise an animal as the Mongoose. So he departed, leaving behind him the two fat snakes, outside of which did the Mongoose promptly place himself.

But the Mongoose's son, who had happened to witness the above interview, exclaimed, in great surprise, "But, papa, why did you tell the Pig that he was run down, and recommend him to go to the truffle-grounds of Périgord, when all that is needed to cure him is that he should swear off pig-wash for a bit."

"My son," smiled the sagacious Mongoose, "you know nothing. The Pig wanted me to send him to the truffle-grounds of Périgord, and I wanted the snakes. He has got what he wanted; so have I."

Moral—Ask your doctor.—London Truth.

WHY HE DID IT

A characteristic story is told of Abe Gruber, the well-known New York lawyer. When he was a boy looking for something to do he saw a sign "Boy Wanted" hanging outside a store in New York. He picked up the sign, and entered the store. The proprietor met him. "What did you bring that sign in here for?" asked the storekeeper.

"You won't need it any more," said Gruber, cheerfully. "I'm going to take the job."—Washington Post.

THE OTHER KIND OF GUM

The private secretary of a well-known publisher in the East is a young woman of refinement, both of conduct and of language. Brought up in New England, and educated at a college famous for its attention to the niceties and elegancies of existence, she was as far removed as possible from the slang-using, bang-wearing, gum-chewing stenographer of the comic papers. Next door to the publisher's establishment a young Englishman, striving with moderate success to establish himself here as a landscape-architect, had opened an office. In due course of time he became acquainted with the publisher, who, in turn, introduced him to the private secretary. One day, when the private secretary was sitting serene and dignified at her desk, the Englishman entered precipitately.

"How do you do?" she said, sweetly.

"I beg your pardon," said the Englishman, "but could you spare me just a little of your gum?"

"Gum!" she exclaimed, with horror and amazement depicted on her face. "Surely you don't think I—"

"Really, I beg your pardon," ejaculated the Englishman a second time, in still more confusion. "How stupid of me! I remember now you say 'mucilage' in America."—Epworth Herald.

"Why do you weep, my child?"
"Boohoo! I've been expelled from school, and can't play hookey no more!"

VICE VERSA

Here's a late story anent Christian Science. A Boston mother said to her little daughter, "If you had my faith, darling, you would have no toothache."

The child replied, "Well, mother, if you had my toothache you wouldn't have any faith."—Boston Herald.

Brer Shorter—"Am you cognizant ob de fac' dat de locality whah you am gwine at de fermometer am registah mo' en a hunderd in de shade?"
Brer Stouter—"Dat I is, Brer Shorter, an' you may depen' upon it dat Ise gwine to be pow'ful careful ter keep outen de shade!"

INFANT DAMNATION

Deacon Johnson—"Does yo' b'liebe in infant damnation, Brudder Jackson?"

Brother Jackson—"Deedy no! Dey'll pick up cuss words 'nough widout bein' swored at by deir parents."—Puck.

CAUTION

"Willie, did you thank Mr. Speedway for taking you out for a drive?" said the mother of a small boy, solicitously.

No answer.

The question was repeated.

Still no answer.

"Willie! Do you hear me? Did you thank Mr. Speedway for taking you out for a drive?"

"Yes," whispered Willie; "but he told me not to mention it!"—Life.

WHY

Tess—"You and Miss Sere don't seem to be good friends. What's the matter?"

Jess—"Why, she remarked that she was twenty-four years old and—"

Tess—"And you doubted it?"

Jess—"Not at all. I merely said, 'Of course, but when?'"—Philadelphia Press.

IN PRAISE OF PROSPERITY

They raised his salary two years
ago last May.
The said increase amounting to
thirty cents a day;
Since then they've raised the prices
Of carrots and of beets,
Of flour and of meats,
Of corn and coal and fruits,
Of babies' little boots,
Of potatoes, milk and cheese,
Of the product of the bees,
Of hats and socks and coats,
Of all that sinks or floats.
He's paying out the money that
he saved before his raise,
But prosperity's upon us, and his
heart is full of praise.
—Chicago Post.

A FAIR AVERAGE

Visitor—"Lady Evelyn tells me, Dan'l, that you have had four wives."

Daniel (proudly)—"Ess, zur, I 'ave—an' what's more, two of 'em was good 'uns!"—London Punch.

THE DYING CALF

An amateur sportsman had mistaken a calf for a deer, and the calf was breathing its last.

"T-tell mother," gasped the dying martyr, addressing the sympathetic sheep who stood near by, "t-tell mother t-that I died game."—Chicago Daily News.

DEDICATED TO A. FREEDMAN ET AL.

"What do people mean, pa, when they say the first shall be last?"

"They have in mind the New York baseball club, that starts the season at the top and ends at the bottom."—Judge.

YES, WHO IS IT?

What rushes through the
crowded street
With whirling noise and
throbbing beat,
Exhaling odors far from
sweet?
The motor car.

Whose wheels o'er greasy
asphalt skim,
Exacting toll of life and
limb?
(What is a corpse or so to
him?)
The motorist's.

Who flies before the oily gust
Wafted his way through
whirling dust.
And hopes the beastly thing
will bust?
The pedestrian.

Who thinks that it is scarcely
fair
To have to pay for road repair
While sudden death lies
lurking there?
The ratepayer.

Who, as the car goes whizzing past,
At such law-breaking stands aghast?
(For forty miles an hour is fast.)
The policeman.

Who hears the case with bland surprise,
And over human frailty sighs,
The while he reads between the lies?
The magistrate.

—Punch.

WONDERFUL STOVE VALUES.

$5.65 Buys our ACME WONDER COOK STOVE; GUARANTEED STRICTLY HIGH GRADE; every new improvement; extra fine finish; OUTSIDE OVEN SHELF; HEAVY COVERS, OVEN DOOR KICKER. Safe delivery guaranteed.

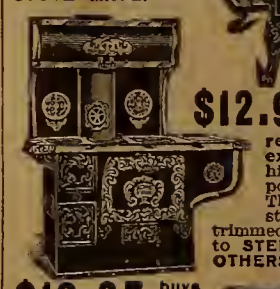
$9.85 BUYS OUR ACME QUEEN Cook Stove. Highest grade wood or coal stove made. Large porcelain lined reservoir; strongest castings; perfect fitting; handsome nickel trimmings; every modern improvement.

NO BETTER BAKER MADE.

$15.60 BUYS OUR Acme Duchess Coal and Wood Burning, HIGH SHELF AND RESERVOIR RANGE. The highest grade cast iron range made. Latest rococo pattern, handsome base, beautiful high shelf, extra large porcelain lined reservoir, ELABORATELY NICKEL TRIMMED.

$13.95 Buys our ACME FAVORITE Steel COOK STOVE. Highest grade non-destructible coal and wood burning steel cook stove made. A big stove, with extra large oven, fire box and porcelain lined reservoir, HANDSOME NICKEL TRIMMINGS THROUGHOUT. Every modern improvement. Guaranteed to bake better and with less fuel than any other COOK STOVE MADE.

$13.95



$12.98 ACME WINNER STEEL RANGE. $12.98 without reservoir or shelf, $17.98, exactly as illustrated, with high shelf, closet and large porcelain lined reservoir. This is a large, handsome steel range, beautiful nickel trimmed and decorated. Superior to STEEL RANGES SOLD BY OTHERS AT $25.00 TO $30.00.

$19.25 buys our big CHALLENGE Nickel Trimmed 1903 Model STEEL RANGE, equal to ranges sold by others at $30.00 to $40.00, one of the handsomest big steel ranges made, very latest in design, combines the good points of all other high grade ranges, finest nickel bands, nickel mountings and trimmings, high shelf and closet, big porcelain lined reservoir, burns wood or coal, guaranteed in every way.

WRITE FOR FREE STOVE CATALOGUE.

Our stove foundry, one of the largest in the United States, now being enlarged, will be the largest in the world. We make all kinds and sizes of steel and cast iron stoves, ranges and heating stoves. Our prices barely cover cost of material and labor, with but our one small profit added. We will ship any stove to any address, guaranteeing it to reach you in perfect condition and with the understanding that after you have given it 30 days' free trial in your own home, if you do not find it better made and finished, a better baker or hester than you can buy elsewhere at less than double our price, you can return it at our expense, and you will not be out one cent. FOR FREE STOVE CATALOGUE, astonishingly low prices and the most liberal offer ever made, cut this ad. out and mail to

SEARS, ROEBUCK & CO., CHICAGO.

RESTORES EYESIGHT.

"Actina," a Marvelous Discovery that Cures All Afflictions of the Eye Without Cutting or Drugging.

There is no need for cutting, drugging or probing the eye for any form of disease. There is no risk or experimenting, as thousands of people have been cured of blindness, failing eyesight, cataracts, granulated lids and other afflictions of the eye through this grand discovery, when eminent occulists termed the cases incurable.

Mrs. A. L. Howe, Tully, N. Y., writes: "Actina removed cataracts from both my eyes. I can read well without glasses. Am 65 years old." Robert Baker, 80 Dearborn St., Chicago, Ill., writes: "I should have been blind had I not used Actina."

Actina is sent on trial postpaid. If you will send your name and address to the New York & London Electric Association, Dept. 382, 929 Walnut Street, Kansas City, Mo., you will receive free, a valuable book, Prof. Wilson's Treatise on the Eye and on Disease in general, and you can rest assured that your eyesight and hearing will be restored, no matter how many doctors have failed.

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FULL JEWELED watches, and gold filled hunting cases, Warranted 20 Years, are the lowest. Do not buy one until you get our prices. Send your name on postal for our latest Free Catalogue.

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Or we will send you by express C. O. D. $3.75 for free examination, a handsome engraved 14k double hunting case, gold plated, stem wind and stem set watch, fitted with a richly jeweled movement, guaranteed a perfect timekeeper. After examination if you consider it equal in appearance to any gold filled watch warranted 20 years, pay your express agent $3.75 and express charges and it is yours. A long gold plated chain for ladies or vest chain for gents, and our guarantee that the watch can be returned within 30 days if not satisfactory, sent with each watch. Mention if you wish Gents or Ladies size. DIAMOND JEWELRY CO., Dep. A10, 255 Dearborn St., Chicago, Ill.

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TRY THEM FOR Coughs, Colds, Asthma, Bronchitis, Hoarseness, and Sore Throat.

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SEND YOUR SUBSCRIPTION AT ONCE AND WE WILL SEND THIS

CHARMING NEW PICTURE FREE

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REDUCED ILLUSTRATION FULL SIZE 20 BY 30 INCHES

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Notice the illustration and see that the artist has displayed more than the usual amount of genius. He has painted a wide gilt border, in exact imitation of **a gold frame,** so that a *frame is not needed.* It has the full appearance of a handsome gold frame three inches in width. Fasten the four corners to the wall and it will have the full effect of a heavy gold frame. It is quite proper at the present time to hang works of art without frames. However, this picture can be framed if you so desire.

Ten Colors and Gold The colors and tints, the lights and shadows that the artist uses in his make-up of the sky and the clouds and the distant hills, the vale and the stream and the meadow; the rosy-cheeked, smiling, beautiful young girl, dressed in pink, and her pet, create

The Most Striking and Exquisite Picture

of its kind that we have ever seen. The artist has employed no less than ten of the most delicate and beautiful colors and gold in his creation of this charming work of art.

The illustration here can give but a meager idea of the charming beauty of the picture. It must be seen to be appreciated. It is fresh from the artist's brush, and never before offered to the public, so that the FARM AND FIRESIDE readers have the first opportunity to secure a copy.

Every Home Should Have It Our ability to reproduce exactly such a magnificent work of art, that usually costs a fortune to own the original, places it within the reach of all. Every home in the land now has a chance to secure one of the pictures. An opportunity like this should be taken at once. The influence for good that high art has on the minds of both the young and the old should not be overlooked. Make home cheerful, bright and attractive, and thus cultivate that which is wholesome and good.

Full Size of the Picture 20 by 30 inches

Subject The subject is a beautiful young girl, with a most pleasing smile, fondling a calf, and the scene is in a meadow-field. The girl is attired in a pretty pink lawn dress with a yoke of loose white material. She wears a rough-straw picture-hat, trimmed with beautiful buttercups, poppies and lilies-of-the-valley.

Biggest Offer of the Season

FREE **We will send one copy of this magnificent new picture free, together with a whole year's subscription to the FARM AND FIRESIDE (provided you order at once), new or renewal, to one address, for only 35 cents. Or, we will send this charming new picture as a reward to any one sending us only one new subscription to the FARM AND FIRESIDE.**

Address FARM AND FIRESIDE, Springfield, Ohio

FINE NEW PATTERNS

ONLY 10 CENTS

These patterns retail in fashion bazaars and stores for twenty-five to forty cents each, but in order to increase the demand for our paper among strangers, and to make it more valuable than ever to our old friends, we offer them to the lady readers of our paper for the low price of only **10 cents each.**

No. 4279.—Blouse or Shirt Waist. 10 cents. Sizes, 32 to 40 inches bust.

No. 4217.—Ladies' Blouse. 10 cents. Sizes, 32 to 40 inches bust.

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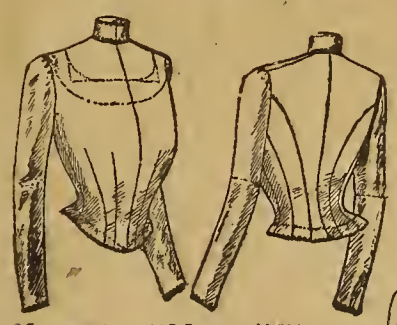
No. 4318.—Child's Rompers. 10 cents. Sizes, 2 to 6 years.



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No. 4181.—Boys' Box-plaited Shirt-waist. 10 cents. Sizes, 6 to 16 years.

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No. 4069.—Ladies' Seven-gored Flare Skirt. 11 cents. Sizes, 22 to 34 inches waist.

Full descriptions and directions—as the number of yards of material required, the number and names of the different pieces in the pattern, how to cut and fit and put the garment together—are sent with each pattern, *with a picture of the garment to go by.* These patterns are complete in every particular, there being a *separate* pattern for *every single piece* of the dress.

All orders filled promptly.

For ladies, give BUST measure in inches. For SKIRT patterns, give WAIST measure in inches. For misses, boys, girls or children, give both BREAST measure in inches and age in years. Order patterns by their numbers.

Satisfaction guaranteed or money refunded.

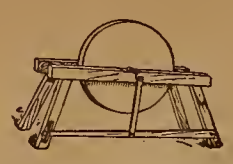
To get BUST and BREAST measure, put the tape-measure ALL of the way around the body, over the dress, close under the arms.

Special price of each pattern 10 cents.

Postage one cent EXTRA on skirt, tea-gown and other heavy patterns.

Send for our new pattern catalogue.

Address FARM AND FIRESIDE, Springfield, Ohio



Prize Puzzles

We Want to be Neighborly, and so Invite All of Our Resders to Use Our Grindstone. It Will Sharpen Your Wits, Quicken the Intellect, Afford Healthful Recrestion, and Give Innocent Amusement and Entertainment.

Residents of Springfield, Ohio, are not allowed to enter the contests.

OUR WEIGHT PUZZLE

$8.00 Cash Given in Prizes for Solving this Puzzle

Also Ten Copies of Our Charming New Picture, in Ten Colors. for Which No Frame is Needed

FOURTEEN PRIZES TO FOURTEEN WINNERS

A First Prize for Men
A First Prize for Women
A First Prize for Boys
A First Prize for Girls

This prize puzzle is simple enough for any school-girl to guess easily. It is just a question of knowing your arithmetic. If you can add and subtract accurately there will be no trouble about solving the puzzle.

Three little girls decide to cheat the weighing-machine by getting weighed in pairs. Annie and Bessie get on the scales together, and find their combined weight is 121 pounds. Next Annie and Carrie try it, and their weight is 123 pounds. Bessie and Carrie together weigh 125 pounds. Now who can guess the separate weights of Annie, Bessie and Carrie?

Two dollars cash will be given to the first man sending us the correct answer to this puzzle.

Two dollars cash will be given to the first woman sending the correct answer.

Two dollars cash will be given to the first boy sending the correct answer.

Two dollars cash will be given to the first girl sending the correct answer.

Those who send the next ten correct answers will each be awarded a copy of our beautiful new picture, made in combination of ten rich colors, bordered with gold, ready for use without framing.

No more than one prize will be awarded to any one family. Contestants must state their ages. To be considered, answers must reach us by February 1, 1903. Address Puzzle Editor, FARM AND FIRESIDE, Springfield, Ohio.

In our issue for February 1st we will announce the winners of the prizes offered in our Puzzle column of the January 1st number.

Has Found the "Secret of Life"

Marvelous Discovery of a Mysterious Compound that Prolongs Life and Cures Every Disease

It Acts Like Magic, and Hopeless, Helpless Cases are Cured that Seem Like the Miracles of Bible Times

Free Trial Packages to All Who Send Name and Address

At last the secret of long life and perfect health has been discovered. The Vital Life Fluid, as its discoverer calls it, cures ill health and disease like magic. For years scientists, chemists and doctors have worked for this. It has been the dream of the student, the goal of the learned professors, to discover the secret of life. Surely this man has reached it, for by the aid of his mysterious Vital Life Fluid, the secret of which he alone knows, he cures all diseases. No matter how severe the sickness, nor how many remedies or doctors have failed, pain and distress disappear like magic before this wonderful compound.

He Has Discovered the "Secret of Life," for He Cures All Diseases With His Marvelous Vital Life Fluid

It seems as though all diseases are alike to this great physician and his marvelous Vital Life Fluid. He cures them all. The stories of his wonderful cures of hopeless cases, told by the happy patients themselves, read like romances or the miracles of Bible times.

There is no question of the doctor's sincerity in his claim that all disease can be cured by his matchless Vital Life Fluid, and one can hardly doubt his ability to carry out his claim after having talked with people whom he has cured quickly and safely of all kidney and liver disease, lung and stomach or heart trouble, syphilis, consumption, constipation, rheumatism, neuralgia, blood and skin diseases, catarrh, bronchitis, paralysis, diabetes, lost vitality, nervous debility, insomnia, blood poison, anemia, female weakness and ailments, eczema or salt rheum, headaches, backache, nervousness, fevers, coughs, colds, asthma and any disease or weakness of the vital organs. It matters not what the disease, nor of how long standing, nor how many doctors or remedies have failed, he has repeatedly renewed the youth of old men and women—has often instilled into jaded men and women new vitality, health and strength. To weak, weary women he has brought the light and happiness of health. For worn-out men he has relighted the sparkling vitality of youth. He has cured the crippled and healed the sick, and he has gone about this quietly, unostentatiously, but nevertheless with the unbounded success that is winning him the gratitude of all sick and helpless men and women. All systems are alike to the doctor, for his Vital Life Fluid is the secret of life.

It seems a personal pleasure to the doctor to do these good deeds quietly and peacefully. His only desire or anxiety in the matter seems to be to extend his aid and counsel to every sufferer on the face of the earth, and at his own expense and without charge he is sending free trial treatment to every sick or ailing person who sends him their name and address, and tells him what they wish to be cured of. He is indeed a remarkable man, doing a remarkable work, and every sick and suffering person should avail themselves of this marvelous Vital Life Fluid he gives them absolutely free. Thousands have saved a sick friend's life by sending him their name. For the benefit of any who wish to address him personally, we give his private address, Dr. C. Sargent Ferris, 2371 Elektron Building, Ft Wayne, Ind.; for, although the demands on his time are something enormous, he gives his personal attention to every letter.

FREE TO AGENTS complete outfit for paying business. All profits clear, as we prepay charges. Full particulars by addressing FARM AND FIRESIDE, Dept. of Agents, Springfield, Ohio

COSTS NOTHING TO TRY IT

$8.45 buys one of our "Competition" Drop Head Sewing Machines. This is a lower price than any machine of equal grade is being sold for. For $19.85 we offer a strictly high-grade, attractively finished machine, equipped with latest improved automatic drop head, ball bearings, eccentric system of mechanism, etc. This machine we guarantee to do as good or better work, to be as well made and finished and to give as long and satisfactory service as any machine on the market. A better machine cannot possibly be made, and agents get $45.00 to $60.00 for the same or poorer grades. **Write for free Sewing Machine Catalogue L O,** which gives complete descriptions and large pictures of our extensive line, also full particulars about our Free Trial Offer and Guarantee. Our well-known reputation of 31 years' standing is an assurance that we will treat you fairly and do exactly as we agree. **Write today** for the Special Sewing Machine Catalogue, sent **free.**

MONTGOMERY WARD & CO.,
Michigan Avenue, Madison & Washington Streets, CHICAGO.

Dairying In Nebraska

If you are interested in Dairying the illustrated pamphlet we have just published will give you new ideas on the subject. Few people realize, for instance, that one of the largest Creameries in the world is in Lincoln, Neb., and that Nebraska climate, forage and water make it an ideal and most profitable field for the Dairyman. The pamphlet will be mailed to any address without charge. Send for it TO-DAY.

P. S. EUSTIS, Passenger Traffic Manager C. B. & Q. Ry. Co., 209 Adams St., Chicago.
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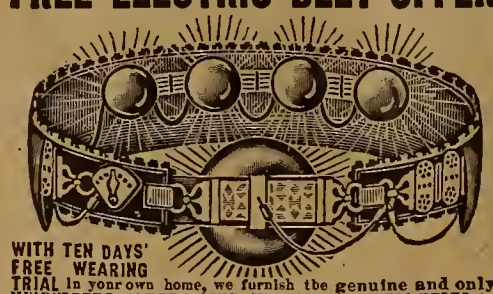
$10 PREMIUMS GIVEN AWAY WITH $10 ASSORTMENT

Of Laundry and Fine Toilet **SOAPS** and Perfumes. Our Premiums consist of Couches, Morris Chairs, Beds, Tables, Desks, Stoves, Musical Instruments, etc. In fact, through the **LOCKWOOD WAY** you can furnish your entire home free. Send your name and address and we will mail you absolutely **FREE** our beautiful illustrated catalogue, containing handsome and useful premiums, also full information regard to our 30 days' FREE TRIAL order.

1 of 100 Premiums **LOCKWOOD SOAP CO., Dept. 24, KANSAS CITY, MO.**

FREE ELECTRIC BELT OFFER



WITH TEN DAYS' FREE WEARING TRIAL in your own home, we furnish the **genuine and only** HEIDELBERG ALTERNATING CURRENT ELECTRIC BELTS to any reader of this paper. No money in advance; very low cost; positive guarantee. **COSTS ALMOST NOTHING** compared with most all other treatments. Cures when all other electric belts, appliances and remedies fail. **QUICK CURE** for more than **50** ailments. ONLY SURE CURE for all nervous diseases, weaknesses and disorders. For complete sealed confidential catalogue, cut this ad. out and mail to us

SEARS, ROEBUCK & CO., CHICAGO.

Any Article You Want? Not One Cent Cost

If there is any article in the way of musical instruments, jewelry, guns, revolvers, household goods, silverware, clocks—anything in the general-merchandise line that you want, write us and we will tell you by return mail how to get it. Be sure to write to-day, and address your letter to

Dept. C, FARM AND FIRESIDE
Springfield, Ohio

FAT

How to reduce it. Mr. Hugo Horn, 344 E. 65th St., New York City, writes: "It reduced my weight 40 lbs. 8 years ago, & I have not gained an ounce since." Purely vegetable & harmless as water. Any one can make it at home at little expense. No starving. No sickness. We will mail a box of it & full particulars in a plain sealed package to any address free of charge.
HALL CHEMICAL CO. Dept B. St. Louis, Mo.

Mysterious EVERLASTING FIRE!

Marvelous new fuel that **BURNS FOREVER**; makes Intense heat, but never burns up; hotter, cheaper, cleaner than coal; 1c worth cooks a meal or heats a room; burns in **ANY** stove or grate, or outdoors anywhere, **WITHOUT** attachments or kindling; no ashes, smell or smoke; **ABSOLUTELY SAFE**; pronounced "miraculous, supernatural;" great excitement wherever shown. Agents making fortunes; **NINE-TENTHS PROFIT!** No capital required; territory **FREE.**
BRYON & CO., C 214, Cincinnati, Ohio

Free Rupture Cure

If ruptured write to Dr. W. S. Rice, 1555 Main St., Adams, N. Y., and he will send free a trial of his wonderful method. Whether skeptical or not get this free method and try the remarkable invention that cures without pain, danger, operation or detention from work. Write to-day. Don't wait.

$3 a Day Sure Send us your address and we will show you how to make $3 a day absolutely sure; we furnish the work and teach you free, you work in the locality where you live. Send us your address and we will explain the business fully, remember we guarantee a clear profit of $3 for every day's work, absolutely sure. Write at once.
ROYAL MANUFACTURING CO., Box 810, Detroit, Mich.

EXPOSITION FLYER

Via

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From

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Write for Rates and Folders.

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CINCINNATI, OHIO.

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The Peerless Atlas is guaranteed the finest seller on the market, enabling agents to double the best profits they ever made. Your success is certain. Contains 170 mammoth pages, size 14 by 11 inches. 340 Colored Maps and Magnificent Illustrations.

For extra liberal terms and tell-tale pamphlet "Story of the Workers," address

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1427 Silk Fringe Cards, Love, Transparent, Escort & Acquaintance Cards, New Puzzles, New Games, Premium Articles, &c. Finest Sample Book of Visiting & Hidden Name Cards, Biggest Catalogue. Send 2c stamp for all. OHIO CARD CO., CADIZ, OHIO. **CARDS**

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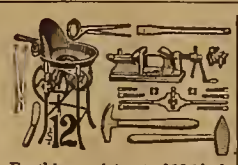
Address FARM AND FIRESIDE, Department of Agents, SPRINGFIELD, Ohio

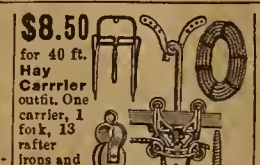
BED-WETTING CURED. Sample FREE Dr. F. E. May, Bloomington, Ill.



For this complete set of 15 blacksmith tools. A wonderful bargain.

$5.40 buys this complete set of 23 carpenter's tools and chest.

OUR CATALOG illustrates, describes and prices all kinds of tools for carpenters and blacksmiths. We sell any tool separate. We save you 50%.



$8.50 for 40 ft. Hay Carrier outfit. One carrier, 1 fork, 13 rafter irons and books. 180 ft. rope, 5 floor hooks, 3 pulleys. Wood, steel and cable track outfits any lengths.

$18.60 Made in 8 sizes for this 12-16 all steel disc harrow; has genuine Ladow bumpers. Dust proof oil tubes. **Most Perfect Made.** Other style discs for $15.25. We save you about 1-3 in price.

$2.78 for this sickle grinder; grinds heel and point at same time. Grinds 6 ft sickle in 10 min. With 1 stone for sickles, $2.78. With 2 stones for grinding all kinds of tools, $3.10.

$2.80 for hand pump No. 151 with cylinder ready for use, with windmill head $3.60.

95c. for No. 1 cistern or kitchen pump, with cylinder. 190 styles and sizes pumps, every kind made, at one-half retail prices. All kinds of pipe fitting.

$16.50 for this 8 ft. Steel Mill; easiest running and strongest made. All sizes, 8 to 16 feet.

$7.45 oblong galvanized 9½ bbl steel tank with heavy angle steel rims. We make all sizes and styles. Send for catalog

Send for Our Catalogue It has 432 pages, size 9x11 inches. Postage is 15c, but if you will cut this ad out and send it to us we will mail the catalog FREE. **MARVIN SMITH CO.,** 55-57-59 N. Jefferson St., CHICAGO, ILL.

This exquisite Calendar in ten colors

is an **exact reproduction** of the charming water-color originals by Maud Stumm, the noted American Water-colorist. Whether you are fond of sweet faces, pretty, dainty gowns and dresses, or delicately tinted, sweet-smelling flowers, this calendar, in **all the original tints and colorings,** will appeal to you. There are six different designs: One is of a dashing brunette, arrayed in an airy gown of pink, and carrying an immense bunch of holly in one arm and some sprigs of mistletoe in the other hand; another is an auburn-haired beauty, gowned in a soft, clinging dress of white, and carrying a gorgeous bunch of American Beauty roses; another is a perfect blonde, dressed in soft greens, and holding some purple lilies. The three which we do not show, owing to lack of space, are of a girl in yellow and white, carrying chrysanthemums; one in light blue, holding pink roses, and another in a lavender evening gown and exquisite opera-cape, with an immense bunch of violets on her breast. These are made up in different combinations of three sheets each. The three designs we show here will give you an idea of the exquisiteness of them all.

Given Free

One of these beautiful calendars will be sent **FREE** to any one inclosing 40 cents for a year's subscription to the FARM AND FIRESIDE.

(When this offer is accepted no cash commission will be allowed, neither will the name be counted in a club)

The three sheets (each 13 by 10 inches) are tied together with a silk ribbon, so that they may be readily hung up.

Present Subscribers sending 40 cents may extend their subscription one year from time their present subscription expires, and secure this exquisite three-sheet calendar.

Order as "No. 17"

We will give this beautiful calendar to any one sending us one new subscription of some one else (not in their own family) to the FARM AND FIRESIDE.

Address FARM AND FIRESIDE, Springfield, Ohio

$1,000.00 Cash Will Be Given For Solving Puzzle No. 1

Just a simple little box with fifteen blocks, numbered from 1 to 15, as shown in the illustration. Place them in the box exactly as shown in the large illustration, Fig. 1; that is, in straight numerical order, except that the "15" block is placed in front of the "14" block.

Puzzle No. 1 is to move the blocks about (without jumping, turning the blocks, or removing any of the blocks from the box) and bring them in the position shown in Fig. 2.

For the first correct solution of this puzzle in the fewest number of moves, according to these conditions, received before February 5th, a cash prize of One Thousand Dollars will be given, provided the party obtains a puzzle with certificate from us.

$25.00 in Other Cash Prizes

Puzzle No. 2 Start with the blocks as in Fig. 1; move the blocks (without jumping, turning the blocks, or removing any of the blocks from the box) so as to get the numbers in regular order, but with the vacant square at the upper left-hand corner instead of the lower right-hand corner; see Fig. 3.

Puzzle No. 3 Start with blocks as in Fig. 1, and move blocks to positions as in Fig. 4. The blocks must be slid about, and must not be jumped or taken out of the box.

These prizes are offered to only those securing puzzles of us.

Every one contesting for any of these Prizes MUST inclose with their solution a certificate found in each box of our Puzzles.

For the first correct solution, in the fewest number of moves, of either Puzzle No. 2 or No. 3, received between January 25th and February 5th, we will give $10.00; for the second, $7.00; third, $5.00; fourth, $2.00, and fifth, $1.00. In case two or more send correct solutions in the same number of moves, the post-mark on the envelopes will decide which is first.

In every instance it must be borne in mind that it is a question of speed as well as accuracy. It must be definitely understood that the prizes will be given to the subscriber sending in the correct answers in the *fewest number of moves.* We cannot answer any questions about this puzzle. Place nothing in your letter except the certificate, your answer, and your name and address.

Fig. 1 The correct way the blocks *must be placed* before commencing the puzzles.

One of the "15 Puzzles" in a neat box will be sent by mail for 15 cents.

Two mailed for 25 cents.

Three mailed for 30 cents.

A certificate is included with each Puzzle, which entitles holder to compete for all prizes offered.

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	

Fig. 2 These are the correct positions that the blocks will be in when Puzzle No. 1 is correctly solved.

	1	2	3
4	5	6	7
8	9	10	11
12	13	14	15

Fig. 3 Correct positions that blocks will be in when Puzzle No. 2 is correctly solved.

4	8	12	
3	7	11	15
2	6	10	14
1	5	9	13

Fig. 4 Correct positions that blocks will be in when Puzzle No. 3 is correctly solved.

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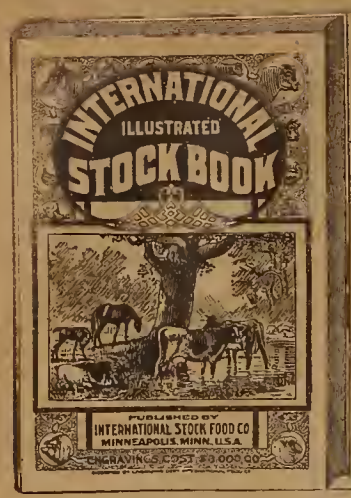

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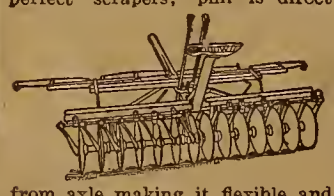

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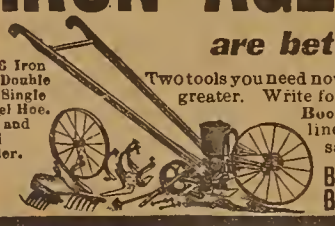

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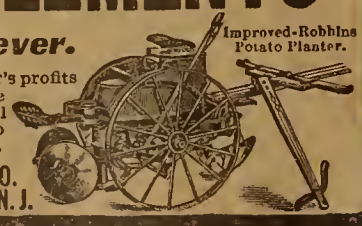

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FARM AND FIRESIDE.

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Tropical Agriculture

The Cultivation of Rubber in Southern Mexico

By FREDERIC J. HASKIN

TROPICAL agriculture is now receiving a large amount of attention. The cultivation of rubber in southern Mexico is being exploited by a few honest companies and a great many dishonest ones. On account of the many uses to which rubber is being put, there is a demand for it in excess of the supply. It grows wild, and until the demand for it became so great no attempt was made to cultivate it. Honest endeavor in any line of development always attracts swindlers who imitate the operations of honest concerns, and the rubber business seems to be a favorite with the gentry who live by preying on the cupidity of the public. It is hard to tell the sheep from the goats.

If the volume of letters from people inquiring about this young industry continues to increase, the United States representatives in Mexico will soon have to answer them all with a printed-form letter. I looked over a pile of several hundred of these inquiries at the American consulate. They were from people who had been led to believe—by high-sounding circulars or glaring, overdrawn advertisements—that fortunes were waiting for those who had money which they were willing to invest. I saw one of these circulars, and its statements were entirely false and misleading. The following paragraph is an extract from it:

"The total expense of cultivating a rubber-plantation of about one hundred thousand trees will not exceed twenty-five thousand dollars in silver, and the yield of the first year's harvest will bring the planter one hundred thousand dollars, besides the product obtained from the corn, vanilla-beans, cocoa and bananas raised from side planting. The net profit on the investment after deducting the entire cost of the land and all expenses up to the first year of harvesting will be ninety-five thousand dollars. Each of the succeeding harvests for twenty-five or thirty years will bring a steady annual income of one hundred thousand dollars. This is four hundred per cent per annum net profit on the investment, and the profit will be gradually increased from year to year."

The fact is that little is known about the business—so little that such a statement as the above could not have the slightest semblance of truth. One would hardly suppose that people could be simple enough to gulp down such extravagant statements and send money to the sharpers. If such wonderful profits are to be had, why is it necessary to peddle the stock in five-dollar shares? One promoter answered this question by saying he did not have the money to develop the business, and capitalists told him that his property was too far away and the conditions too uncertain for judicious investment. If these are good reasons why men who make a business of loaning money should stay out, they are the best possible reasons why the small investors should do so.

A GIANT CACTUS IN MEXICO

RUBBER-TREE FOURTEEN MONTHS OLD

It is a fact generally known to all familiar with the subject that the most money realized from tropical agriculture anywhere has been made by the men who sold the land. When a promoter offers "several hundred per cent returns on an investment in any sort of scheme, the best thing to do is to look very wise and keep your money." If any promoter claims that rubber-cultivation is not in an experimental state, ask him to show you the official list of exports from Mexico, and you will not find it numbered among the commodities that republic is now producing. There is some which grows wild, but very, very little from cultivated trees.

One man who has had considerable experience with rubber gave me the following account of how it is cultivated: It is planted in nurseries from seed picked from the ground after it has fallen from the trees. It is planted thick in beds like radishes and such garden-truck. After seven or eight months, when a growth of one and one half or two feet has been attained, the young trees are transplanted about two hundred and sixty or three hundred to the acre. The trees thrive best on well-drained land, which should be kept clean. The wood is soft, and grows rapidly. The trees ought to begin to yield in from seven to ten years, at which time they will be about forty feet high and have trunks a foot thick. The rubber is taken from the trees by tapping. A native climbs to the top, and with a machete—resembling a corn-knife—cuts in the bark a spiral gash extending to the bottom.

The white sap oozes out and runs downward in this groove, and he must work fast or it will overtake him. A healthy tree will run one day, and the sap is caught in buckets. It is then poured on a cement floor, and left to dry in the sun. It is allowed to stand to a depth of about two inches for two or three days, when it is cut into long strips, rolled into compact form, and shipped in this condition. In drying the sap shrinks about fifty per cent. The annual product of one tree is about two pounds, which sells for two dollars.

If the tapping is done properly the wounds in the bark of the tree will soon heal, and it will be ready to yield again the following year. There are many curious things about the business. In some instances trees planted on soil where wild rubber flourished matured in the proper time, but would not yield. This was afterward accounted for by the fact that no male trees were planted. It is claimed there must be one male to every twenty females or there will be no results. It costs a great deal of money to find this out. There are a good many other things that must be learned before the business becomes in any degree profitable. The small investors are either furnishing money for experimental work or they are being victimized outright. Their chances for profit are about as remote in one case as the other.

Write your own epitaph in high-flown phrases,
Extol your merits with the loudest praises;
Paint every virtue in the brightest hue,
Then—live a life that shall approve it true.

—Lord Neaves.

FARM AND FIRESIDE

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Mr. Greiner Says:

THE DUCHESSE PEAR.—"Every dog has its day." The Angouleme, better known as "Duchesse," pear used to be popular and profitable. Its day has passed. Fortunately, it being grown on dwarf stock, the tree is short-lived, and the orchards will soon give out. I don't know of any one around here who would plant even one tree of this once highly esteemed pear. With us the drift is all for Bartlett.

SENSIBLE ADVICE.—A brother of mine who was under the impression that I am afflicted with stomach trouble writes me as follows: "Try Graham bread with water, or milk at most; and if you want me to guarantee a cure, come here and work ten hours a day digging and clearing out the swamp in company or competition with my men. I won't charge you anything for the cure." Simple food, used in moderation, and vigorous, regular exercise in open air, are medicines more powerful than any found in our drug-stores.

COST OF TREATMENT FOR SAN JOSE SCALE.—In experiments with different methods of treatment for the San Jose scale made by the Illinois State Experiment Station the fumigation process was found to be much the most expensive. At Ridgeville, where the trees treated were usually of medium size or less, the cost was nine cents a tree for fumigation materials, while at Sparta, where the trees averaged much larger, this cost was eighteen cents a tree. At the latter place whale-oil soap, although applied only to the largest trees as a rule, was used at a cost of seven cents a tree for the soap itself. At Carterville and Browns the average cost of lime, salt and sulphur for the California wash was from two to three cents, according to the size of the tree, while the general average a tree for kerosene emulsion as applied to over five thousand trees was two cents each. In convenience of application the preference belongs clearly to the kerosene emulsion and the California wash, the use of whale-oil soap being frequently embarrassed in very cold weather by the solidifying of the solution in the hose if the flow is stopped, and the operation of fumigation being a laborious and complicated one for trees above medium size. In a general way the station recommends spraying with the California wash (salt, lime and sulphur) as the best method for common use.

RECEIPT FOR LONGEVITY.—The daily papers in a local item recently stated that a prominent fruit-grower of Geneva, N. Y., visiting at Fredonia, called on an acquaintance of his who is ninety-five years of age, and found him in the field digging potatoes. Inquiring about his mode of living (with a wish to prolong his own life by similar means) he received the following answer: "I eat plenty of pork and potatoes, drink strong coffee and beer, have used tobacco all my life, and bathe regularly once a month." I greatly doubt that my Geneva friend accepted this as a sure receipt for long life. The incident, however, if true, shows what wonderful vitality some people possess, and to what extent an outdoor life with plenty of vigorous exercise and the pure air it affords can sometimes prevent or modify the effects of a whole list of the gravest errors in eating and drinking, etc. A man who can live to be ninety-five years of age and still be digging potatoes, after he has indulged freely in pork, potatoes, strong coffee, beer and tobacco all his life, must have a wonderful constitution and be one of those men who, living as Nature intended we should live, would remain free from aches and pains until his machinery, simply from wearing out, finally comes to a peaceful stop at the age of one hundred and ten or one hundred and twenty years. I wonder, though (and I in my Geneva friend's place would have inquired into it), whether this old gentleman really has had no disease, no pains or uncomfortable feelings which could have been avoided by adhering more closely to the rules of modern hygiene, and whether his life could not have been prolonged and made more comfortable and cheerful for him. If I were his physician I would first of all recommend to him restrictions in the use of pork, potatoes, coffee, tobacco, etc., possibly entire abstinence in the case of the two last-mentioned articles. My own health has greatly improved since I left off smoking tobacco and drinking strong coffee.

FRUIT ACIDS.—Sometimes it happens that country people and the agricultural papers get the start of city folks and city papers, with all their wonderful news-gathering and news-distributing facilities. The daily and weekly papers all over the country at this time are reporting the (alleged new) discovery of the wonderful germicidal powers of lemon-juice, and the fact that physicians all over the country are adapting this discovery to their practice in typhoid-fever cases. That the juices of our acid fruits in general, and the lemon in particular, possess powerful germ-destroying qualities should be no news to those who have read the FARM AND FIRESIDE during the past three or four years. In one of the earlier issues I quoted from what I believed to be good authority the following paragraph: "It is not popularly known that fruit acids are germicidal. The juice of lemon and lime is as deadly to cholera-germs as corrosive sublimate, or sulphur fumes, or formaldehyde, or any other disinfectant. It is so powerful a germicide that if the juice of one lemon or lime be squeezed into a glass of water that is left standing ten or fifteen minutes the water will be disinfected; it makes little difference where the water has been obtained, or whether it has been boiled or filtered. This is a fact worth knowing, for any one may find himself under circumstances in which it is impossible to get water of known wholesomeness, or boiled or filtered water. In such a case the juice of a lemon or lime will purify the water perfectly." To this I added (and you can find it on page 24 of Part I. of "The Garden Book," published April 1, 1901) the following: "For years I have acted on the supposition that fruit acids kill disease-germs. I am convinced that typhoid-fever germs lurk in many wells, and for that reason have become afraid of well-water as a beverage, pure as it may appear, and good as it may be to the taste, unless either boiled or medicated. The medication has usually consisted of the addition of plenty of lemon-juice. Lemon-juice is likewise known to destroy the germs of diphtheria, and undoubtedly of other infectious diseases. Probably other fruit and vegetable acids perform a like service to suffering humanity. Among such powerful germicides we have the acids of the currant, the strawberry, the cherry, apple and plum, of rhubarb, etc. Why should we neglect to let these natural agents stand guard right along at the main entrance (mouth and throat), and arrest the germs of those terrible diseases before they have a chance to harm us?" I am glad that the big dailies begin to see these things and show them up in their true light to the people at large. There is a wide field for missionary labors, both in country and city, if we want to convert the people to the new dispensation of "natural products versus drugs and patent medicines for the prevention and cure of disease."

Mr. Grundy Says:

TURKEYS.—Several readers of the FARM AND FIRESIDE want to know how I manage young turkeys. Some state they have no luck at all, being unable to raise a single one to maturity. One says she has been unable to get them past the second week, and another says that hers droop and die at about two months old. Most of them appear to meet with the greatest loss when the birds are from three to six weeks old. This loss is caused almost wholly by the attacks of lice, though every turkey-raiser is willing to make affidavit that his turkeys are wholly free from these pests. They know, because they have examined them carefully and thoroughly. A turkey-louse is so nearly the color of the turkey's skin, and they lie so close, that only an expert is likely to see them; but it is a fact that they kill more young turkeys than all diseases combined. When the growing quills on the wings crease the skin, the lice creep into those creases, and live there and kill the bird. When lying close down in those creases they cannot be seen unless one has extra good eyes; but this is the particular time when they do most harm, and must be destroyed or the bird will almost surely die.

AFTER TURKEYS ARE HATCHED it is best not to feed them anything for about thirty hours. Most turkey-raisers make the mistake of feeding too much, and kill the young birds with kindness. They should be fed very little at a time. A little hard-boiled egg is probably the best thing for them at first. This and a small quantity of millet-seed is the best food that can be given them during the first three days. They should not have a particle more than they will eat up quickly. After that, cottage cheese, bread squeezed dry from sweet milk, corn-bread crumbled dry, millet-seed, onion-tops, rape or green mustard chopped fine. Be sure to feed only what they will eat at once. Give them grit the first time they are fed, and see that they do not want for it at any time afterward, and do not forget to supply them with plenty of clean drinking-water in some sort of vessel that will prevent them from soiling it. When about five weeks old, broken wheat, oats and corn may be added to their feed. From this time on they will eat quite a quantity, and grow rapidly, becoming hardier every day and more able to look out for themselves. They do not need pills or powders of any kind at any time if they are properly cared for, but we must be particularly careful about the lice, and use every means to destroy them.

FOR KILLING THE LICE I use insect-powder—Persian insect-powder it is generally called, though it is produced in California. It costs me thirty cents a pound, and I use it liberally. In applying it I first spread a large paper on the ground, open the box, and while one catches and passes up the birds, I apply the powder thoroughly with my hands, turning the bird over and over, and getting plenty of powder in all the quill-creases and wherever lice are likely to find lodgment. When the bird is thoroughly powdered I give it a little shake and put it back in the pen. A large number can be powdered in a very short time by two persons. When the powdering is done, the paper is gathered up, and all that has fallen on it is poured back into the box, which must be kept closed tightly and in a dry place. I have found it advisable to apply the powder at least once a week until the birds are well feathered. It is not much of a job for two persons, and forty or fifty birds can be powdered in a very few minutes, and the cost is very little when no powder is wasted. I would again caution turkey-raisers to watch the wing-creases very closely, and be sure to get the powder into every one of them, for that is the weak point of the bird. Don't overlook one.

CONFINING AND THE COOP.—Whether the turkeys are hatched by the mother turkey or by hens, they must be confined until well feathered for best results. About the best way is to make a triangular pen with three boards a foot wide and eight to twelve feet long. Fasten the boards together at the corners, so that they will not pull apart easily. Inside this pen keep a coop that can be closed against rats and minks at night and yet will have plenty of ventilation. The openings for ventilation can be covered with common screen-wire. Place this coop and pen on a grassy plot, and move them two or three feet every day, so that the birds will have fresh grass to pick. The moving can be done when they are fed. Be sure that the coop is dry and rain-proof, and clean it out at least once a week, and burn a small wisp of straw or an old crumpled-up newspaper inside of it. This will destroy any louse or other insect that may have found lodgment in any of the chinks, and at the same time purify the interior. All of these little details are important, but they are not difficult, nor do they require much time in their performance. If one desires to raise his turkeys without loss he must attend to them the same as other stock, and the price obtained for a single good bird will amply repay the cost.

CARE OF THE TURKEY HEN.—In the instructions for keeping down lice I should have mentioned that the top of the turkey's head is a favorite pasturing-ground for these destructive pests, and it should have close attention. Some successful turkey-raisers apply a mixture of lard and sulphur to the top of the head, and it is a very good remedy; but there is a possibility of getting too much on. I prefer good insect-powder. The mother of the young birds should receive some attention along this line. She should be powdered well occasionally. If she is a hen, and is given a dusting-place of loose earth, among which a quantity of dry wood-ashes has been mixed, she will rid herself of lice without any assistance. Still, to make sure that she is not undoing your work with the young birds, it is advisable to give her a good application of powder occasionally. As to the best time to have turkeys hatched, I do not care to have them out too early. Sometimes a turkey hen will begin laying in the latter part of February, and in that case I keep the eggs in the house, where they will neither be chilled nor heated, and hold them about a month before setting them. In placing them in the box where I keep them, I wrap them in pieces of newspaper, and stand them on the small end. When carefully kept they have hatched about as well as fresh eggs. I like best to have my turkeys hatched when the weather is fairly settled and warm. Turkeys hatched at this time start off well, and make a steady growth and are strong. When hatched very early we are apt to have long spells of damp, chilly weather, and they must be shut up closely; growth is checked, and they do not come out of the kinks until quite late in the season. I think I have answered most of the inquiries sent me on this subject.

All Over the Farm

FARM THEORY AND PRACTICE

GET THE MANURE OUT.—It is a common practice in many sections to apply the stable manure on sod for corn, and this way has much to recommend it on stock-farms that have a large supply. The manure, however, should be spread as early in the season as possible. The best corn can be gotten where the top-dressing has been put on the sod before Christmas. Time is thus given for leaching the best of the soluble plant-food into the surface-soil and for rotting the solid portion of the manure. The breaking-plow brings up the fertility that has gone below the surface, and there is good distribution of the food throughout the soil that will be penetrated by the plant-roots. When manure is spread fresh before the plow all the fertility goes down, and then its tendency is to get further away.

The greatest possible benefit from manure used in this way is gotten when it goes on the sod sufficiently early the preceding season to feed the grass-plants and make a heavier growth for plowing down. The soluble portion of the manure is picked up at once by the grass-roots, so that there is little loss, and then it is released for the benefit of the corn-plants as the sod rots. But there is the winter supply of manure that cannot be handled in this way, and the next best thing is to get it upon the sod about as rapidly as made. The loss of manure under the eaves of barns has been so great that our leaders in agricultural thought have urged the spreading of manure at any time. I doubt the wisdom of such advice, as I have seen serious loss from spreading on ice-bound land when heavy rains followed; but it certainly is best to spread manure as fast as made when there is no glare of ice to prevent it leaching into the ground.

It is wasteful to plow down fresh manure for corn. The manure that has been evenly spread over the surface for weeks or months is the most effective. The manure that is made after Christmas will hardly be as effective as that gotten upon land earlier, but we should get it out on the sod as fast as it is made, and get the fullest possible benefit.

LOSS OF MANURE IN PILES.—The soluble plant-food in stable manure is the most valuable part, because it is ready for use by crops. The part that will not leach away readily when soaked by rains in the barn-yard is the least valuable part. It is poor business to throw good fertility into a pile outdoors, where it will be dissolved and carried away by water, and then pay out good money for fertility in a commercial form to replace it. If the manure is put into a loose pile under a roof the mineral elements will not be lost, but here the most valuable element—nitrogen—escapes through the heating of the material. Manure can be kept with little loss for a long time under a roof if the air is excluded from it by heavy tramping. Where the amount of bedding is not too heavy, manure from horse-stables can be well kept when evenly spread under a roof and then tramped by stock, especially cattle. If there is any lack of moisture, a hose should be run to it, and it should be wet so that it will pack tight. When the ground is ready to receive the manure, the best thing to do is to spread it at once. The soil has an affinity for the fertility in the manure, hooking onto it tightly when dissolved portions enter the ground.

BALANCING UP MANURE.—Stable manure is not a perfectly balanced plant-food. We can get good yields by its use, but some elements go on in excessive amount to secure a sufficient amount of other elements. That may do very well in the case of some crops when the farm supply of manure is ample, but that is rarely the case. We are learning to use a less number of tons to the acre, and to make the supply go over more acres, and then balance up by the use of some mineral fertilizer. The land needs the humus that is in stable manure, and a comparatively light application will add this while supplying possibly all the nitrogen that is needed by the crop that is to be grown. A limited amount of the manure favors the action of organisms in the soil that free fertility. To this application of manure some mineral fertilizer can be added —some phosphoric acid, and potash if necessary—and the farm supply of fertilizer is given a chance to do more good than when it is dumped in large quantities on only a few acres of the farm.

One element in which stable manure is deficient is phosphoric acid, and that we can buy in an acid phosphate—phosphatic rock treated with an acid to make it soluble. Many stockmen are learning to use this material in the stables as an absorbent of ammonia. It contains much sulphate of lime—land-plaster—which is a good absorbent of ammonia that might otherwise escape into the air, and at the same time it is balancing up the manure by supplying the element lacking in the manure; and it is an element, by the way, in which most soils are lacking. We can do this, or we can apply the acid phosphate to the land at planting-time.

We do not yet understand very well the processes going on in the soil to prepare for making crops. Nature has a wonderful laboratory down there. We have learned, however, that the work cannot go on well unless there is organic material at hand, and the material gotten in stable manure is the very best kind. An immense amount is not required, and when the farm supply is limited the right thing to do is to apply a relatively small quantity, providing a medium for the working of the friendly organisms in the soil that free plant-food for us, and to make the manure go over as many acres as possible of the land we must crop. Having this humus, and having nitrogen in the well-kept farm manure, we then add some mineral fertilizer if experiment shows that it is needed. This is rational fertilization of the soil.

Get the manure upon the land as soon as possible. Spread it evenly. Do not dump it in excessive quantities upon a few acres, causing a waste of nitrogen, and let the other acres go undressed, but make the dressing lighter, and cover as many acres as possible. That gives our friends, the soil bacteria, a chance to work for us. Then add the mineral plant-food that may be needed in the form of a commercial fertilizer—phosphoric acid in an acid phosphate, and potash if tests show that potash is needed. DAVID.

ABOUT THAT HIDE

A letter full of well-meant criticism on the article recently published under the title "He Had the Hide Left" comes to me from a friend in the West. May I quote from it a little? This friend says: "That is very true. The landlord stays on the farm until he gets the hide and tallow and the farm all runs down. Then he rents the farm, and moves to town, thinking he can get more in rent for the place than he has been making. He determines not to make any repairs. If the tenant wants anything done he can do it himself. He charges a high rent, and will rent for only one year at a time. The tenant cannot make enough to live on, and takes no interest in the work. Four fifths of the landlords want too much rent. If they would give the tenant a fair deal they would get a fair deal in return."

This puts the side of the tenant in sharp contrast with that of the landlord, and shows that there are two sides to the problem. In the case mentioned by me the conditions were not quite parallel to those existing in the West; but we will let that pass. It remains a fact that never until both landlord and tenant are willing to deal justly and honestly with each other will this vexed problem be solved. There must be mutual trust and confidence. The owner of the land must be ready to do his full share toward maintaining the soil and keeping the buildings and other farm equipments in a good state of repair. On his part the tenant must be watchful over the property for the time being intrusted to him. He must look after the cattle as if they were his own. He must treat the horses, if they are not his own, just as if they were his. In short, the relations of the two should be such that each can fully trust the other. If the landlord sees that he has a good tenant he should make every effort to retain him, even if he is compelled to make some concessions.

As illustrative of the cross purposes which sometimes come in to disturb the peace of landlord and tenant I will recall a case that recently came to my notice. A cow died of milk-fever on the hands of the tenant. The owner set out to collect damages from the tenant. It did not appear that the loss was in any way due to neglect on the part of the tenant, and it is difficult to see how the landlord can make a case against his tenant. The result will be a change in tenants, with consequent loss all around. Mutual concessions would have obviated all this trouble. As our correspondent truly says, fair dealing on the part of one begets fair dealing on the part of the other. That is the rule that should prevail. E. L. VINCENT.

THE CORN CROP

The government crop reports for the past year came in as the old year passed out. For several months the newspapers have been talking much about our bumper corn crop and the great wealth it will bring the country. Superficially, these figures are bewilderingly immense. We find it businesslike and fashionable to talk about millions, tens of millions and hundreds of millions, but only as a numerical proposition can the human mind comprehend a hundred millions, scarcely a million.

These figures of the corn crop—which, exclusive of hay and cotton, show a value almost equal to all the other grain crops, with potatoes and tobacco counted in—show an acreage in corn of 94,043,613; a production of 2,523,648,312 bushels, valued at $1,017,017,349. Now, if these figures are approximately correct—and of course they cannot be more than an approximation—they carry a very suggestive lesson for the man behind the plow and the husking-peg.

By a little figuring it will be seen that this immense quantity of corn represents a little less than twenty-seven bushels to the acre, or a gross value of about ten dollars and fifty cents an acre. Again assuming that the figures are correct, the billion and over seventeen million dollars at which this great crop is valued has only been added to the wealth of the nation by having been taken from the fertility of the land and the industry of men's lives; for at only ten dollars and fifty cents an acre the crop has been produced at an average loss.

I have no desire to act the pessimist nor detract from the pleasure men get in contemplating big figures; I merely wanted to figure down to the man with the hoe. If individual opinions are of any value in a matter of such magnitude, I want to record mine as being inclined to regard this yield and the value figures as not large enough, for I cannot conceive of the average corn crop being so low as less than twenty-seven bushels an acre. But if this low average is possible, or if we may add a liberal percentage to it, a little figuring for and against the farmer may do him some good when he plants his next crop. If the stand of corn on a field be but a stalk every square yard, the acre will contain four thousand eight hundred and forty stalks. If every stalk bears an ear shelling twelve ounces of corn, the yield an acre will be nearly sixty-five bushels, or half that, of course, if the ear shells only six ounces, or if there be ears shelling twelve ounces on only half the stalks, or if there be a stalk only every two square yards with a twelve-ounce ear.

Good corn-growers will have three and one half stalks every two square yards, and some even more, and instead of twenty-seven bushels an acre they have from fifty to one hundred and twenty-five. The farmer may therefore figure out his own bad farming, poor land or miserable seed if he is making the government average. I am quite sure almost any of us can increase our crop ten per cent by the use of better seed alone.

W. F. MCSPARRAN.

FERTILIZER AGENTS

Not long ago I listened to a lecture by T. B. Terry, of Ohio, on bringing up a worn-out farm without the use of fertilizers. It was a grand speech, and should have been an educator to the farmers, but after the meeting I asked one of those sleek fertilizer agents what he thought of the speech. He replied that the man must be a fool. A few days later he told the crowd that was loafing about the village hotel that he had sold phosphate to almost every one that heard Terry talk.

As for myself, I am a firm believer in the arguments of Mr. Terry, and each year I have been adding to the fertility of my soil by following his plan.

Do the farmers ever stop to think that the sleek individual who comes around regularly every six months to supply them with fertilizer is greasing his own pockets to the tune of from six to ten dollars a ton? Professor Roberts of Cornell figures the cost of the chemicals of a fertilizer analyzing "2-8-2" at thirteen dollars and ninety cents a ton. Add to this the cost of freight and mixing, not over two dollars and ten cents, and you have a fertilizer for sixteen dollars a ton. All the rest goes to the mixer and the sleek agent for doing the business with the farmer.

Why don't the farmers buy the chemicals, mix their own fertilizers, and save all this commission? When you have concluded to do it, this same sleek agent will be at your door to sell you the chemicals. But look out for him; better buy direct from some reliable house.

Do the farmers know that damaged beans are worth nearly as much as a fertilizer as the brands usually sold in their neighborhood at from twenty-two dollars to twenty-five dollars a ton? JOHN DEERE.

$100.00 Name Contest Announcement

"A Willing Captive" is the Name Selected for Our Charming New Picture

As announced in the January 15th issue of the FARM AND FIRESIDE, we herewith give the result of the $100.00 Name Contest. A committee of three persons was appointed to select the names entitled to consideration, and after working diligently for several days, reduced the number of names to be considered to eight. Eight disinterested parties who had a thorough knowledge of the merits of the picture were each requested to vote (without consulting each other in any way). When the vote was counted, it was found that the name "A Willing Captive" was selected unanimously, the entire eight persons having voted for it.

Then it was found that six persons had suggested the same name, and it was necessary to divide the $100.00 prize as follows: $16.67 cash to each. A check for $16.67 has been mailed to each of the following

Prize-Winners

F. E. Hodgson, Little River, Kan.
Eliza Waldron, Sunbury, Ohio.
R. E. Irwin, Pleasant Valley, W. Va.
Mrs. Effie G. Pancake, Portsmouth, Ohio.
C. B. Bidwell, Little Cooley, Pa.
Mrs. Lucy M. Cole, Marietta, Ohio.

The publishers of the FARM AND FIRESIDE take this opportunity to thank its patrons for the interest taken in this contest.

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Gardening

By T. GREINER

COW-PEAS AND SOYS.—All my cow-peas last year (1902), the wonderfully early New Era included, were a complete failure. I have not gathered enough for seed to plant this year, and will have to get a new supply. The trial of cow-peas and soy-beans sowed somewhat late for hay also resulted in failure. I did not get green stuff enough so that it could be gathered up with a hay-rake, although I mowed the patch over. But one swallow does not make a summer, and one trial in an abnormal season does not prove anything definitely.

EARLY SOY.—M. M. B., of St. Charles, Ill., says he has the past year grown a yellow variety of the soy-bean with perfect success. It grows only from a foot to eighteen inches high, with one hundred and forty to one hundred and fifty pods on a single plant. The seed was planted June 1st, and the beans were all ripe before September 1st. This is undoubtedly the Early Yellow. Ito San is another yellow, but slightly later than this Early Yellow, I believe. In average seasons, here as well as in the inquirer's locality, Ito San can be grown to maturity by early September if planted in early June. It is my favorite variety.

EVER-BEARING STRAWBERRIES.—Thus far my search for a real ever-bearing, or at least a fall-bearing, strawberry has been without results, as already stated in these columns. A few days ago I met the originator, or rather finder, of the Pan-American strawberry, and he asserts that this sort is a decided freak, as it will rather bear in July, August, September and October than in June. I saw some of his berries last fall on sale in one of the big grocery-stores in Buffalo, where they were retailed at fifty cents or more a quart. He lives about thirty miles from Buffalo, and I hope to see his patch next summer or fall. His method of growing the fruit is to set the plants in spring in the usual manner, picking off all blossom-stalks. The first runners also bloom, and the fruit-stalks are picked off. After that the plant is left to bloom and bear fruit, and does this freely and unfailingly. I shall see. The advantage of this variety and method of culture is that the crop is grown all in one year's time.

GROWING CHRISTMAS TREES.—In this vicinity the demand for Christmas trees was very large just before the holidays, and a load of them taken to Niagara Falls market would bring a nice sum of money. To provide for the future we will have to grow Christmas trees, and whoever has an acre of cheap land to devote to the crop, and will set out a lot of Norway spruce (small seedlings of which can be bought very cheaply) say four feet apart one way by two or three the other, give them a little cultivation for one season, and then several years' growth without further attention, will have a chance to secure an annual income of several hundred dollars for a few years. At first every other tree can be cut out of the rows, and the small trees disposed of at say twenty-five cents each. Another year the trees have grown larger, and may again be thinned, and sold for an advanced figure, and so forth. Two years ago I raised a lot of seedlings, but failing to provide them with shade, lost them all during the hot summer.

PEAS MILDEWING.—J. J. W., of Clinton, Mich., wants to know "how to keep his Champion of England peas, the only ones that mildew on his grounds, free from the disease." The weather conditions during the spring are usually unfavorable to the development of mildew on peas. If we plant late or in the summer, for the purpose of getting a fall crop, all pea varieties, especially if making strong growth, are liable to be attacked by mildew. Champion of England is the latest and rankest grower, and probably more subject to mildew attacks than any other kind I know of. In order to keep the crop free from the mildew disease, I would plant the seed just as early as the weather has become well settled in spring, being not too free with the seed, and trying to make only a moderate vine-growth by using mineral fertilizers (potash and phosphoric acid) rather than nitrogenous and organic manures. Such treatment may give you Champions free from mildew. In a small way I usually plant the Champion of England in drills, and support them with brush, and have seldom had them mildew.

GINSENG.—I am not skilful enough to grow ginseng, and shall give it up after possibly making one more trial. And yet I am not ready to dispute that some other people have been able to grow it successfully under a shed that provides half shade. This subject undoubtedly interests a great many people, as anything that has the promise of great profits attached to it will interest the multitude who wish to grow the things that bring the most money. Our increasing literature on ginseng and its culture proves this interest, and the demand for information on all phases of this "money-making" crop. It is hardly three years ago that a modest, twenty-five-cent treatise on "Ginseng" its culture, harvesting, marketing, etc.) was written by M. G. Kains, and many good judges of such matters would have predicted an extremely slow sale of the book. But people are after big profits and the things that promise them. So it is not astonishing that already a much enlarged book, to be sold for fifty cents, has appeared from the pen of the same ginseng expert. It is by far the most complete treatise on ginseng and everything connected with its cultivation and handling that has been offered to the public to the present time.

Fruit-Growing

By S. B. GREEN

SCALE ON COTTONWOOD.—L. O. F., Berwick, N. D. The cottonwood seedling received is infected with what is known as scurfy scale. It is seldom very injurious, but I would not buy seedlings that were so infected. I have no doubt but that these insects could be destroyed by dipping the tops of the seedlings into strong whale-oil-soap suds, or even into clear kerosene, provided all the oil was shaken off and the work done on a bright, dry day, so that it would not stay long on the plants. In buying nursery stock it is important to get that which is healthy to start with, as you probably will have trouble enough without starting with nursery stock that is already infected.

GUMMING PEACHES.—C. C., Sierra City, Cal. The gumming-disease on your peach-trees may be a constitutional disease or it may come from the presence of borers. In either case there is probably very little to be done for them if they are badly infected. I would suggest that you start a new orchard on new land, if you can do so, and remove these trees and grow some other crop on the land for a few years before planting to peaches again. The reason why the trees appear especially full of gum in damp weather is because the gum absorbs moisture from the air, and swells up, while in dry weather it lies close to the trunk of the tree, and is not so apparent.

TREES FOR IOWA.—A. R. H., Oskaloosa, Iowa. There is a large number of shade-trees that would do very well in your section. For street-trees I think that if you do not like the white elm on account of its requiring some pruning to get it into shape, that you will be pleased with the hackberry, which resembles the elm very much, but is less inclined to send out awkward branches, and requires very little pruning. It makes a large tree, and should be planted only where it will have plenty of room. Among the best trees for the lawn are mountain ash, Russian olive and cut-leaf birch. These are small trees, and for small lawns are much better than the larger kinds. There is a long list of shrubs that would be hardy in your section. Among the most popular are Van Houtte's spiræa, snowball, bush honeysuckle, hydrangea, lilacs and syringa. Most of the hardy grape-vines should do well with you. Among those that are especially desirable I would mention Worden, Brighten, Agawam and Concord. The best plums are De Soto, Wyant and Milton. Of the peaches the Alberta and Kalamazoo. Among the best evergreens for you to plant are red cedar, white spruce and white pine.

PEACH-BORERS.—J. R. C., Marshall, Okla. In regard to borers in apple-trees, they can be destroyed in their burrows without cutting the bark away by the use of bisulphid of carbon, which is a fluid much like gasolene, but more expensive. The vapor from this material is death to all animal life confined with it. The way to use it is to put it in an ordinary oil-dropper, then clear the trash away from the entrance of the borings and inject a small amount of fluid, and stop up the hole with putty or grafting-wax. If trees are girdled completely around they will require very careful treatment to enable them to heal over, and if the girdle is at least three fourths of an inch wide there is little chance that they are worth saving. The best way to treat such wounds is to cover them with grafting-wax, and where they are near the surface of the ground cover them with soil also, to prevent drying out. I should be very careful in looking for borers not to remove the bark completely around the tree. As a rule, a little sharp-sightedness will show where the burrowings are by the darker color of the bark over them, and it will not be necessary to cut the whole distance. The borers should be in the tree at this time of year, and if the borings are fresh and full of trash you can be sure of it. Where the holes are clean the borers have left. The life-history is about as follows: The eggs are laid early in the summer by a beetle in cracks on the trunk of the tree. These hatch out into small borers, which soon work their way through the crevices of the bark into the wood, where they live through the summer and next winter, appearing in the spring as beetles. If the borers are as bad as you state, I should aim to keep the trunks of the trees covered with a paint of soft soap thinned with quicklime and water during the months of June and July, which is the time when the eggs are laid. While this may not entirely prevent the beetles from laying, yet it will have a tendency to keep them away.

DISEASES OF PEACH.—M. L. K., Russum, Miss. The cause of the rot on your peaches is a fungous disease known as Monila. This disease may enter the flowers or the young fruit early in the spring, and cause it to rot, after which it dries up and may remain on the tree over winter. In warm days of spring these dried fruits on the trees will be found covered with a mildew, which distributes the spores for future infection. You will see, then, that it is desirable to remove these dried peaches or else cover them with some material which will render them non-injurious. Probably the best treatment for this would be spraying the trees early in the spring, three weeks before the buds open, with Bordeaux mixture, which would destroy the spores on the branches and largely on the dried peaches themselves. In a small way the dried peaches should all be removed and either burned or buried during the winter. Your peach-trees are evidently also infested with the peach-borer, which causes the small holes from which the jelly-like gum exudes. The best remedy for this is probably to dig out and destroy the borers. Where trees are very badly infested, the best treatment is probably to cut and burn during the winter months. If this plan is resorted to it should be understood that burning is absolutely necessary to destroy the borers which are now in the wood. I am inclined to think that the fruit that ripens with you is probably infested with what is known as peach-curculio, although from your description I am not sure of this. This is a troublesome pest, and I think you will be most likely to get good results by spraying your trees with Bordeaux mixture, to which should be added one pound of Paris green to one hundred and fifty gallons of the mixture. This spraying should be done before the buds open after the fruit sets. Bordeaux mixture for this purpose should be made of five pounds of lime, five pounds of sulphate of copper and fifty gallons of water. This material will also prevent the rotting of the fruit. You should understand, then, that instead of having only one disease you really have one disease and two injuries that result from insect pests.

A GARDEN FACTORY

would be a good name for this "Planet Jr." No. 4 Combined Drill. It will drill in accurate rows or drop in hills 4, 6, 8, 12 or 24 inches apart all kinds of garden and vegetable seeds. It never clogs, stutters or misses, but always puts the seed at the right place and depth and then covers it up and rolls it down. When the plants are up it hoes, cultivates and plows, either both sides of the row or in the middle. The small cultivators kill most of the weeds before they get started by thoroughly stirring and displacing the top soil. That same stirring preserves the moisture but admits sunshine and air to the plant rootlets, and myl how things do grow. And it's so easy to work that it turns gardening into a pastime and pleasure. They are so very reasonable in price that anybody who has a garden can afford to own one. With the aid and moderate use of this tool you can easily have the best garden in your neighborhood this season. Should you need a riding cultivator you will find our No. 70 "Planet Jr." Pivot Wheel Riding Cultivator, Plow, Furrower and Ridger, as shown below, the very best thing on the market. It is but one of our fifty seeding and cultivating implements, including plain and combined Seed Sowers, Wheel Hoes, Hand Cultivators, Walking Cultivators and One and Two-Horse Riding Cultivators, Special Sugar Beet Tools, etc. Our new 1903 catalogue is up-to-date. It contains over 100 illustrations with full descriptions and prices. It costs you nothing and will make you money. Write for it.

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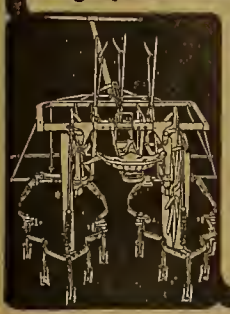

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BEST that Grow?

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Send us 16c and we will send you postpaid one package each of the following: E. B. Turnip Beet, Rosy Gem Radish, Prize Head Lettuce, E. J. Wakefield Late Flat Dutch Cabbage, H. C. Parsnip, Crookneck Squash, Sweet German Turnip, Beauty Tomato, and Rocky Ford Muskmelon. FREE—Our illustrated catalogue telling how to get the best seeds that grow for 3c a package.

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For early bearing of large, bright red, delicious berries, nothing excels the EARLY HATHAWAY. First choice in all markets. Immensely prolific, fruit firm, plants dark leaved, strong growers. Free catalog of many excellent varieties.

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850,000 GRAPE VINES

100 Varieties. Also Small Fruits, Trees, &c. Best Rooted stock. Genuine, cheap. 2 sample vines mailed for 10c. Descriptive price-list free. LEWIS ROESCH, Fredonia, N. Y.

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Six per cent interest, principal and interest paid in gold; ten banks for references. Write to-day for prospectus.

IRA T. SWARTZ, PIQUA, OHIO

In the Field

SEEN IN NEBRASKA

TWENTY-SIX years ago, when a boy, I passed through Fremont, Neb., in a prairie-schooner. At that time I was particularly struck by the great number of haystacks scattered over the wide expanse of the Platte Valley. The long, level reaches of meadow appealed to my imagination. Here was a place for a happy, prosperous people. Here the virgin soil that had never been touched by the plow was yielding a valuable crop to the husbandman who had the wisdom to protect the growing grass, and to mow and care for it in due season.

Since that pleasant fall of the good Centennial year I have passed through this part of Nebraska a number of times, but always in the night. This morning the sun rose as we started out of Omaha into the abounding West. I remembered my boyish enthusiasm for the fat valley of the Platte, and as the swift Colorado Special sped on, passing the cornfields and pastures of eastern Nebraska, passing inviting farm-houses and modest little towns, the old feeling returned. I was in a country which the finger of God had touched with blessing.

When Fremont had been passed, we came into the great meadows which I had not seen at their best in the earlier day. On both sides of the railroad the flat land spread out for miles. Ahead and behind it was the same—long stretches of brown meadow reached out toward the receding West and melted into the coming East. The sight was one to touch the springs of poetry in the most prosaic nature. I tried to count the haystacks. As well might one try to count the haycocks in a prairie meadow in southern Minnesota or the numberless shocks of corn in some great corn-field of Illinois! There was no such thing as counting them. There seemed to be a stack on every five acres; and it is hardly an exaggeration to say that a thousand haystacks were in sight from a single point of observation.

The effect is the thing. I am not trying to give statistics. I need not say what actually is; to do that is the business of the Nebraska board of agriculture. But I may testify to the sights my eyes have looked upon, and to the impression made upon my mind and my imagination. This is one of the fat valleys of a state of almost measureless agricultural possibilities. As I write, we have not reached the short-grass country, where lack of rainfall makes crops uncertain, but are still in the region where trees grow tall, where corn-cribs are bursting, where sleek cattle feed in the fields where the corn has been gathered. The barren, weary lands are further on, where the high plains of western Nebraska meet the higher and less hopeful plains of eastern Colorado. Here are all the signs of thrift rewarded. Here is a country of homes.

My own home is in Colorado, within sight of a hundred miles of snowy mountains, in a country where we water our fields with streams drawn from rushing mountain torrents. The people who cultivate this valley—our own Platte Valley in a larger edition—have the advantage of us. God is on their side, sending them the early and the later rains. We must harness the rivers and capture the floods.

[On the train.] D. W. WORKING.

THE GINSENG BUSINESS FAIRLY STATED

There is no doubt in the minds of many who have taken the time or had opportunity to investigate the ginseng business that there is a lot of humbug in the air. There are a lot of boomers in the business of getting people to buy a little stock of roots or seeds, or both. They tell in their circulars and advertisements of the marvelous prices the dried roots bring in China, which may be true in most cases, but they are small beside the prices they ask and get for what they sell. Last fall I visited several of the ginseng-gardens in the best section of New York for the growth of this plant, on purpose to see for myself the true state of the business, if that was possible. I was treated with the utmost courtesy by all the growers on whom I called, and was shown the inside of the matter in all its departments. Some were among the largest growers, and others had only very small beds. After looking over these gardens and the business in general it is my conviction that the business is not a humbug, but that there are humbugs in the business. By this I do not mean that those visited by me are humbugs, but that those who advise the general public to go into the growing of ginseng are perpetrating a fraud for their own immediate profit. The officials of the United States Department of Agriculture, here at Washington, tell me that one person is kept almost constantly busy answering letters of inquiry as to the culture of ginseng. They say, too, that most of the inquirers are persons of small means, and many of them widows who are expecting to find something that will bring big profits for little outlay or work. They seem willing to put their little savings into the business. The boomers keep the people stirred up by their artful schemes, while they are reaping the harvest. There are a very few so-called companies that are trying to buy up the little growers and corner the stock, so they can still further raise the prices and reap all the profits. My advice is to beware of these boomers and their alluring offers. They hope and expect to make so much out of the sale of little plants and seed that they will not care what becomes of the business after a while. They are not selling the dried roots to be taken to China, which is the only market for it, except a very little that they may find unprofitable for seed-production. There is no doubt a good market for the dried roots, but how long it will hold at the present high standard, or how soon and how low it will fall, is unknown. I believe that there will be profit in the growing of ginseng for market, under proper conditions, for some years to come, but that the average grower will make it pay I do not believe. While the reader may think he is to be one of the successful ones, it is wiser to believe the reverse.

Ginseng-plants are most exacting in their requirements. They must have just the right climate, the right soil, and that is very hard to find or make; and they must have the very shadiest of shady locations. A cool, even temperature and deep, loose woods' soil are essential. It is little evidence of future success to know that ginseng grows in the woods near where it is proposed to plant a garden. Common garden conditions will not do at all. Nor will a shady place in the woods do very well. Growing under sheds is the best way. The roots are almost sure to be stolen unless very closely watched. Insecurity is one of the main obstacles to final success. My advice is that nearly every one should let the ginseng business alone, and only plant after they have made the closest possible study of the subject.—H. E. Van Deman, in the Rural New-Yorker.

NEWS-NOTES

It is estimated that the production of beet-sugar in Michigan in 1902 exceeded that of California. This is a remarkable showing and an indication of the immense possibilities of the Northwestern states for sugar-production. From present indications the trans-Mississippi states will produce enough beet-sugar to keep pace with consumption, and still further tend to cheapen the price and reduce expected profits.

By means of the excellent advice afforded by the publications of the Department of Agriculture, the various agricultural colleges, the experiment stations and the best agricultural papers, intensive culture has gradually superseded the former methods of farming. As a result, the annual average yield to the acre of agricultural products has been, and is being, gradually increased. With increased crops comes the facilities for increased enjoyment and a higher standard of living. Farming under such conditions becomes equally pleasant and profitable, and the farmer ought to enjoy his work and love it. * * *

THE SHARPLES Tubular Dairy SEPARATOR

Here is a sample of the kind of letters we get every day:

"Have often heard of the Sharples Tubular Separator, but never investigated it until now. I thought all separators more or less alike until I tried your Tubular. I have used other separators, but never knew what a separator could be or should be, until I got this. No fat left in the skim-milk—half the labor to turn it—one-tenth the number of parts to clean. The talk of others misled me to my own loss, but now I know better."

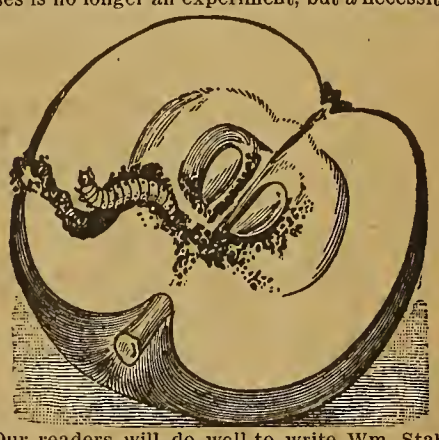
Every dairy farmer can have a free trial of the Sharples Tubular and decide in accordance with his own judgment—not talk. Catalog No. 112 free.

SHARPLES CO., Chicago, Ills. P. M. SHARPLES, West Chester, Pa.

Let us put your name on the free list of the "SEPARATOR"—a good paper for dairymen and farmers.

SPRAYING FRUIT TREES

The question of spraying fruit trees to prevent the depredations of insect pests and fungus diseases is no longer an experiment, but a necessity.



Our readers will do well to write Wm. Stahl, Quincy, Ill., and get his catalogue describing twenty-one styles of Spraying Outfits and full treatise on spraying the different fruit and vegetable crops, which contain much valuable information, and may be had for the asking.

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Good seed assure good gardens. Gregory's seeds have been the favorites of gardeners and florists for 40 years. Always successful.

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Gardens

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for 1903 is free to all interested in gardening who mention this paper. If you want an up-to-date garden you ought to have it, the best seed catalogue I have ever published. The first edition costs over $37,000. Address simply

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Best in the World.

None so low in price. Largest illustrated seed catalogue ever printed, FREE. Engraving of every variety. Price only 1 cent per pkg, and up. A lot of extra packages, rare sorts, presented FREE with every order. Send name and address by card or letter.

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Live Stock and Dairy

THE NEW YORK STATE DAIRYMEN'S ASSOCIATION

ABSTRACTS OF ADDRESSES AT THE TWENTY-SIXTH ANNUAL CONVENTION AT JAMESTOWN

FANCY MILK PRODUCTS.—H. E. Cook said that in the past decade rapid development has taken place in fancy cheese and proprietary foods made from milk. Wisconsin leads to-day with three fifths of the total output of fancy cheese. New York is second, with one third. The center of the fancy-cheese industry is in Greene County, Wisconsin, where the people are mostly Swiss. The fancy cheeses are in growing demand, and the industry should receive more attention. This brand of Swiss cheese comes within the limits of ordinary expenditures for Cheddar cheese, and therefore within the means of many factories. The cheese is made in kettles now manufactured with steam connections. The curd is cooked at a high temperature, and a large waste of fat takes place, which is saved in the better-equipped factories by passing the whey through a separator, or hand-skimming it. The cheese requires from seventy-five to one hundred days for curing. First it is put in a cellar with a temperature of sixty-five to seventy degrees, next in a temperature of sixty to sixty-five degrees, and finally in a temperature not above sixty degrees. It is a sweet-milk production, yet there are certain ferments apparently necessary for developing its flavor and especially the "eyes" for which it is noted. I am of the opinion bacteriological investigation is needed to control these ferments, not unlike that we now exercise in the control of Cheddar cheese. There is a group of German cheeses that have as a basis of manufacture the same general principles. The cheeses when cured take on a peculiar flavor for which taste must be acquired, and they are highly prized by our foreign population. The cured cheeses are dipped at a temperature of eighty-six degrees, and placed on draining-tables, the temperature being held at about eighty degrees during the draining process.

ECONOMICS OF FEEDING ANIMALS.—Doctor Jordan of the New York Experiment Station said the great question to-day is "What is truth?" We want fundamental information, or facts that are the basis of true success in agriculture. Ignorance never saved any one, morally or financially. No farmer can purchase fertility for his soil or food for his animals unless he has reliable knowledge about some things. He must have some scientific knowledge—science is only well-grounded knowledge. Some experiments at our stations have taught us some things. In feeding cows we did know what went into them and what came out. These are the facts upon which I base my knowledge on the economics of feeding. The subject of feeding depends largely on what you can grow on your farm; for instance, alfalfa is worth a trial on every farm in this state. Every farmer should be an experimenter on his own farm. In no other way can you obtain valuable knowledge. Study your own farm, to learn what you can best do with it. Some farmers can afford to pasture their cows wholly, and some cannot. What you can best produce on your farm is the important question to you. Farmers are not good bookkeepers. They do not know what it costs them to grow their crops. The cost of the food you grow cannot be always estimated by what your time is worth at good wages, for all farmers could not get pay for their time in this way if they did not grow forage crops. The great problem is how to make the farm feed the cow. He said the land at the experiment station used for growing cattle-foods produced food worth forty-eight dollars an acre. He concluded his address by speaking of the adulteration of commercial foods, and advised farmers to take advantage of the new feeding-stuff law, which compels dealers to give a guaranteed analysis of their mixed feeds. W. H. JENKINS.

How to Grow Fat Cattle from Stringy Calves

Where Dr. Hess' Stock Food is fed to delicate, stringy calves, they will be found in the heavy-weight class at shipping time. For indigestion, flatulence, diarrhœa—or any other incident disorder, Dr. Hess' Stock Food is the best remedy. It not only corrects all disorders, but establishes a high standard of health, giving flesh and rapid, sturdy growth. Dr. Hess' Stock Food is both a frame and flesh builder. It compels the conversion of food into fat and solid flesh, by affording appetite and means of perfect digestion and thorough assimilation. Dr. Hess' Stock Food rapidly forces a yearling; gives greater milking capacity to a cow; gives great vigor to bulls; keeps market cattle up to their feed to the last day.

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from seed-time to harvest
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5,000 Farmers
ordered fence direct from our factory this year. Many of them had done so before and had found that our
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THE BETTENDORF
Steel-Gear Wagons and Trucks
HAVE NO EQUAL
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AVERY CULTIVATORS
all have the famous Avery double-acting lifting springs, rod fenders, soft center steel shovels, etc.
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a perfect combined Riding and Walking Cultivator. 8,500 sold in 1902.
Special Points: Wide Tires, Patented Balancing Feature, Level Swing, Easy Handling.
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ITS STAYING QUALITIES
are what distinguish this fence. Compactly woven together like the trussing of a building with all long lateral and staying wires, it stands erect in heat and cold and resists any strain or pressure upon it. Wires of extra strength at top and bottom. Any height from 18 to 54 inches. Handsome, strong and permanent. Write for catalogue.
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with a National Hand Separator and make more and better butter from same quantity of milk. The National will do it easier, quicker and pay its cost in a very short time. We don't ask you to take our word—we send the machine for
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and let it prove its worth right in your own dairy. *You take no risk*—we assume it *all*. If it does not meet your expectations, send it back—we pay the costs. Our catalogue tells more—write for it, it's free.
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3 HP GASOLINE ENGINES
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Write for a catalogue of our new diamond mesh, woven steel wire fence. The best form of farm fence for all-round use.
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Examine it at your dealer's. You buy it without risk. It is guaranteed.
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some cows rob the owner of the feed they eat and of the profit of the rest of the herd. They have little or no butter fat in their milk. Find them out and send them to the block. That makes dairying pay.
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will do it. Runs on ball bearings, 2 and 4 bottle sizes with necessary glassware. Strong, convenient and will last indefinitely. Write for circular and prices.
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Heavier, strongest, most durable fence made. All wires extra large. We sell to Farmers at Wholesale Prices. Coiled Spring, Barb and Soft Galvanized Wire.
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MYERS' Stay on Flexible Door Hangers adapt themselves to his Pigship's every wriggle — stand rough usage and stay on the track. If you are going to buy a pump—double acting, lift tank or spray pump—store ladders or hay tools, Send for our circular, it's FREE.
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Does best work with least labor. Does not mix water and milk. Does away with all skimming, lifting and handling of crocks. Has detachable inner can, self-sealing attachment, sanitary faucet. Write for prices and printed matter. *Agents wanted.*
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Kellogg's Condition Powder is a positive cure for these diseases. Write for circular. Address
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Live Stock and Dairy

BREEDING SWINE

To arrive at the ideal type is much more easy of accomplishment for the breeder of swine than for the breeder of the larger animals, because of the much earlier maturity and much shorter period of pregnancy. All breeders of live stock should have ideals toward which they are working, and breeders of swine will find, in common with all other breeders, that without the use of pure-bred sires definite results cannot be obtained. The breed or tribal characteristics of the thoroughbred male produced to conform to the ideal of the breeder of him may not quite meet the ideas of the one whose herd he is to head, but in a short time, by feeding and selection, the changes may be worked out in the plans of his owner.

The ideal of every breeder of swine should embrace such characteristics as prolificacy, uniformity, early maturity and profit. After these fundamental essentials are established the points of fancy or such as meet an unusual demand may be looked after, but it will be well for the amateur breeder to not lose sight of the essential points.

If one feeds intelligently and selects judiciously he may with profit safely indulge in limited inbreeding for the purpose of fixing a type or establishing a characteristic. For instance, if a sire be from a prolific mother, and he is mated with a sow with prolific antecedents, and the resulting litter is of good size, I should select such females from the litter as conformed to my structural standard, and breed them to their sire, and expect improved offspring. Assuredly, however, in such offspring as in that resulting from such mating the individuals chosen for breeders should be selected with intelligent discrimination. Careless and incestuous breeding must not in their unfortunate results be confounded with the good ends to be attained by intelligent inbreeding; and it is against the former that our breeders need to be warned.

Theories and matters of opinion count but little in swine husbandry in comparison to the importance of selection and feed, and upon these two points more than on anything else rests the supremacy of the American hog and his good offices to those who stand by him.

W. F. McSparran.

MERINO RAM, TWO YEARS OLD; CHAMPION AT ILLINOIS AND ST. LOUIS FAIRS

SELLS WHEAT IN PIGSKIN

A farmer in North Dakota finds it profitable to sell his wheat by feeding it to his pigs, and as he puts it, "sells his wheat in pigskin."

In countries where corn is a very small crop, and cannot be counted upon at all with any reliability, farmers are finding that with barley, oats, peas and grasses they can grow their hogs and fatten them with wheat and barley, and make it more profitable than to sell either grain from the farm.—American Swineherd.

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Between Rochester and Buffalo, N. Y., one sees a great many silos attached to the farm-barns. This is the case all over the state wherever milk-production is made a specialty. In modern dairying success depends upon good cows and a continuous supply of good, succulent food. By using an improved milk-tester the unprofitable cows can be culled out and disposed of, and better ones secured. Dairying can be made a profitable branch of farming if modern methods are adopted, such as the use of ensilage, improved dairy-stock, the improved cream-separators—in fact, all of the up-to-date methods. * * *

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U S U S U S U

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S U S U S U S

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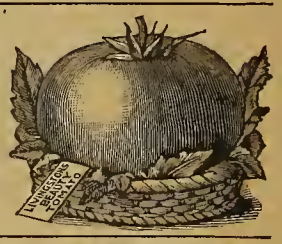

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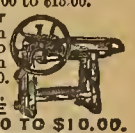

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Hatch Every Hatchable Egg.
Easy to take care of because it takes care of itself, and the price is right too. Fine large illustrated catalogue free. Address
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Large catalogue for stamp.
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Our new 68-page illustrated book tells how to make it; also how to feed, breed, grow and market poultry for the best results and a great mass of useful information for poultry raisers, quotes low prices on pure-bred fowls and eggs. Send 4c in stamps to F. FOY, Box 10, Des Moines, Ia.

The Greider Strains,
fifty of them, are bred to make prize winners. Very low prices on birds and eggs, considering quality. Elegant 1903 catalogue sent postpaid for 10 cents. Write to-day.
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The Gem Incubators
and Brooders are sold at half the price of other makes, and are absolutely guaranteed to hatch every good egg or money back. 60 egg size $6.00. Brooders $4.00. Direct from factory to you. Write for catalog. It's free. J. W. Sauer, Box 19, Trotwood, O.

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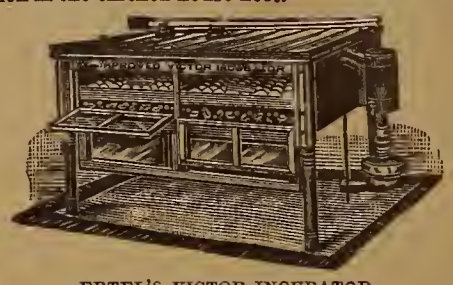
$20 A WEEK straight salary and expenses to men with rig to introduce our Poultry Mixture in country; year's contract; weekly pay. Address, with stamp, Monarch Mfg. Co., Box 1118, Springfield, Ill.

INCUBATORS vs. HENS

Artificial Incubation by Far the Most Satisfactory

Among the few instances where it may be said that artificial means have been made to show improvement over natural methods is in that of the incubator in the raising of poultry.

The fact is generally recognized by farmers and poultrymen, that to successfully meet business competition the incubator is a necessary acquisition. The question of quantity is not the only point of vantage over the hen's method of raising her brood, but quality is also to be considered. The chick that owes its existence to the incubator inherits a stronger vitality, and is less subject to the attacks of disease and vermin that beset the life of the chick that breaks through the shell in the chicken-house nest.



ERTEL'S VICTOR INCUBATOR

The success of the incubator and brooder has created an industry that has rapidly grown to large proportions. Easily the leaders in this enterprise is the George Ertel Company, of Quincy, Ill., the makers of the celebrated Victor Incubator. An idea of the magnitude of their business can be formed from the statement that in one day of February, 1900, they made the enormous shipment of five car-loads of Victors, covering orders from every part of the world.

The Victor has many proven points of superiority—the claim that it will hatch every fertile egg is based on many record cases where 100-per-cent hatches have been realized. This is the crucial test of worth in an incubator—success in its primary purpose—and should be the first point considered in purchasing a machine.

Further substantiated claims of the Victor are the rapid growth and vigorous health of the brood. Many prizes have been traced to the fact that the winner was hatched in a Victor.

The Ertel Company has been long established, and in the manufacture of the famous Victor Hay Baler dates back into the sixties. Their products are now known and appreciated in every part of the world.

A very valuable book about poultry raising and breeding, and illustrating and giving full information about the Victor machines, and also a pamphlet giving the details of the large shipment mentioned above, will be sent on request. The Poultry Book is not a mere advertising circular, but a book valuable as a work of reference. Free for the asking.

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You Will Not Fail in the chicken business if you start right with a Successful Incubator and Brooder.
Not experiments but machines with years of successful record. Perfect regulation—perfect hatches. Do not swell nor shrink. A variety of styles and sizes. Send 6 cents in stamps to cover actual cost of mailing for Incubator and Poultry Books. Standard Poultry and Poultry Supplies. Books in five languages.
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Those of Our People who are interested in Incubators, Brooders, all kinds of Poultry Supplies and the poultry industry in general, should send at once for a copy of the new 1903 book—"How to Make Money with Poultry and Incubators." It is published by the Cyphers Incubator Co., of Buffalo, N. Y. It will be mailed free to all of our people who will write to them asking for it. The greatest recommendation we can give this book is to say that it is the best thing the Cyphers people have yet published. It's the only book we know of that treats the whole subject of profitable poultry growing, etc. There are special chapters on the different branches of the poultry business—duck growing, broiler raising, egg farming, winter production of chickens, broilers, etc. These subjects are treated by the best experts in the country. There are hundreds of photographic views of the largest poultry plants all over the United States, England, Germany, Holland, New Zealand and other foreign countries. There is too much that is good to tell it all in this small space. Send for the book. FREE, postage paid during the next thirty days, if you mention this paper.

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is a word that stands for the best Incubators and Brooders in the world. Each has special distinguishing features. Send 10c postage for Book No. 19, just out, giving *guaranty of money back* if incubator is not satisfactory.
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is the dependable Incubator. Automatic throughout, results the surest and highest. Petaluma Incubators and Brooders are the oldest and most reliable machines on the market. Write for FREE catalogue.
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ROYAL INCUBATOR CO., Dept. 61 Des Moines, Iowa.

Poultry-Raising

By P. H. JACOBS

LOCATIONS

If possible, the poultryman should be located within easy distance of a good market, and near a railroad-station if transportation is necessary. He should select such breed or breeds as his and other circumstances will warrant. He should provide good, comfortable houses, with runs adapted to the object in keeping, bearing in mind that eggs for producing chickens are very much better where the hens have a free run. The essentials are that the farmer or poultryman should feed his fowls on such kinds as are most suitable, always giving a variety.

YOUNG CHICKS

Filth is more fatal to young chicks than to adult fowls, for the latter are more careful in their habits. It is seldom that a case of gapes exists where, everything else considered, the sanitary conditions of the houses and yards are what they should be. The droppings should be removed every day, with an after-sprinkling of air-slaked lime over the floor, and straw or leaves then put in. As soon as the young chicks are hatched it is a good plan to remove them to the garden or out under the trees if the weather is favorable, where they can get plenty of insects to eat, and scratch all they like.

PREPARING BONES

Fowls always prefer bones that are broken or cut (not ground) into small pieces, with meat either raw or cooked adhering to them. The hens do not care for the commercial bone, unless such is free from the odor of ammonia or decaying matter. Dry bones, either broken or ground, will be eaten, but not so readily as those that are fresh. Fresh bones are not easily ground in any kind of mill. They are usually steamed, in order to render them brittle, or placed in the oven and burned. Of course, when subjected to heat they lose more or less of the nitrogenous matter, such as meat or gelatin. With a bone-cutter all kinds of bones can be prepared for the fowls.

CONFINING THE FLYERS

If the wings of a hen are cut they do not grow again, but once a year a hen sheds her feathers, and in so doing she regains the power of flight; hence, some of them, such as the Leghorns, can fly quite a distance, and then become nuisances. Only one wing should be cut, which throws them out of balance when they attempt to fly. The fence may be made of any suitable material, provided the top is composed of sharp points; but where this is inconvenient, a strand of wire running about six inches above the top of the fence will serve as an excellent contrivance, as the hens in attempting to fly over the top of the fence will strike the wire and be thrown back. One or two attempts will invariably disgust the most persistent flyers.

FEEDING WHEAT

Fowls are very partial to wheat. It helps the laying capacity of hens, but it should not be used except with discretion as to the quantity allowed them daily. An excess of this raw grain will very frequently induce a looseness in the bowels. It is easy of digestion, and should be furnished in moderation, as a needful and most desirable variety, in conjunction with other dry grains, such as cracked corn, oats, barley, buckwheat, etc. If not more than one third or one fourth wheat is allowed with the other cereals mentioned, for ordinary purposes in the laying season, the hens will do quite as well, and they can thus be kept in better average condition than if fed to them in larger quantities.

FEEDING FOR GROWTH

The fact that a fowl eats a large quantity of food is no reason for supposing such a matter of loss or that the fowl is unprofitable. The object should be to observe if the bird so appropriates the food eaten as to convert it into flesh or eggs. It requires a certain proportion of food to support the bodies, and only that over and above the use of the fowl for the purpose of waste is available for production. It is often noticed that chicks require three months in which to attain weights that should be reached in ten weeks, as it is well known that a system of high feeding will force a chick to two pounds in ten weeks; yet the majority of the chicks raised do not reach that weight until they are three months old. The food eaten during those extra three weeks is usually more than that which would be eaten by the chick in ten weeks, as the waste of bodily heat goes on during the prolonged time; hence, it is economical to feed the growing chicks all they can eat, and the better their appetites and the larger the quantity consumed, the more rapid the growth and the earlier they reach the market. There is also no saving in trying to make a small quantity of food go as far as possible. Feed liberally, and thereby secure the largest gain in the shortest time.

FARMERS AND THE DEMAND

The farmer who is well informed on market prices for several years, and who keeps a record, will be able to come very close to the time when prices will be up and in advance of the market, by comparing the prices of previous years, as they keep somewhat in the same channel every year. Whenever a cold northwest wind comes, followed by a snow-storm, the probability is that eggs will be high, not because of difficulty of transportation—as such drawbacks are but temporary—but because a change of weather affects the laying of hens. All the eggs do not come from near-by locations, and the supply from those hens that are able to come outdoors during mild weather will be shortened by the changed conditions of the hens, due to cold and sudden storms. When eggs begin to get scarce the farmer should be willing to buy the best egg-producing food, which is lean meat. It may apparently be more costly than grain, but it will be the cheapest of all foods just at the time when eggs are high, as it will induce the hens to lay more of them, and one egg a week will pay for the food of the hen, while three eggs will give twice the profit that can be secured from two. Sometimes an addition to the food of a substance that is rich in nitrogen, carbon and mineral matter will start the hens laying, because it supplies them with some needed substance. For instance, half a pound of linseed-oil mixed with ground grain, given three times a week to twenty hens, has been known to start all the hens to laying. A mess of cut bone and meat will also make a wonderful change if the hens have been kept mostly on grain. Warmth also is an excellent assistant. Make the hens scratch in leaves. It is better to scatter corn and wheat in litter than to put it in a trough, as each hen will have to work for her share, and the greedy hens cannot rob those that are timid.

INQUIRIES ANSWERED

Yearling Ganders.—D. S. C., Alpena, Mich., desires to know "if a one-year-old gander should be retained for breeding purposes." It is possible that if the gander is mated with old geese he may prove successful, but it is preferable to use one at least two years old.

Meal Worms.—G. L., Geneva, N. Y., asks for "the best method of producing meal worms for young chicks." If meal is dampened or allowed to become musty it will become the breeding-place of the fly that infests such material, provided the weather is suitable. A mixture of manure and bran, or stale bread over which blood has been sprinkled, also serves to supply the maggots.

Swollen Eyes.—F. E. G., Washington, Iowa, desires to know "the cause of the eyes of the fowls closing and becoming swollen; they also have a discharge from the nostrils. All are not affected." The cause is probably exposure to dampness and a cold draft over the fowls at night. An excellent remedy is to inject into each nostril a few drops of camphorated oil, and anoint the face and eyes with the same, once a day. Close the ventilator over the fowls.

Lump Jaw
Spavin
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Cure Them All

You can cure all these diseases and blemishes easily, thoroughly and inexpensively. You can also cure Curb, Splint, Sweeny and soft enlargements of every description. If you have any such cases to treat, write us. We will send you two big booklets giving you all the information you need. No matter how old the case or what has failed, we will guarantee a cure by the methods the books tell of—methods now employed by over 140,000 farmers and stockmen. Write today.

FLEMING BROS., Chemists, 224 Union Stock Yards, Chicago, Ill.

For Standard **Poultry** of the highest quality, write to Royal Poultry Farm.
LIST OF WINNERS: S. C. & R. C. Brown and White Leghorns, Barred, White and Buff Plymouth Rocks, Light Brahmas, Black Langshans, Pekin Ducks, Bronze Turkeys, Embden and Toulouse Geese.
Incubators and Brooders. Aren't those that are good enough to try before paying for, worth considering? That's the kind we make. Send for Free illustrated catalogue of Poultry or Incubators, or both.
Royal Poultry Farm, Dept. C, Des Moines, Ia.

SHOEMAKER'S BOOK ON POULTRY and family almanac for 1903. Over 200 large pages of best book paper, with fine colored plates true to life. Tells how to raise chickens profitably, their care, diseases and remedies. Diagrams with full descriptions of Poultry houses. All about INCUBATORS, BROODERS, Thoroughbred FOWLS, with lowest prices. You cannot afford to be without it. Only 15 cts.
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DON'T SET HENS the same old way while a 200 Egg Natural Hen Incubator Costs But $3, other sizes equally as low. Over 125,000 in use. Indispensable to anyone who keeps a hen. Our Patents protected against infringements. Agents wanted everywhere, either sex, no experience necessary. Catalogue telling all about and 25c Lice Formula FREE if you write today. NATURAL HEN INCUBATOR CO. B-62, Columbus, Nebraska.

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Perfect in construction and action. Hatches every fertile egg. Write for catalog to-day.
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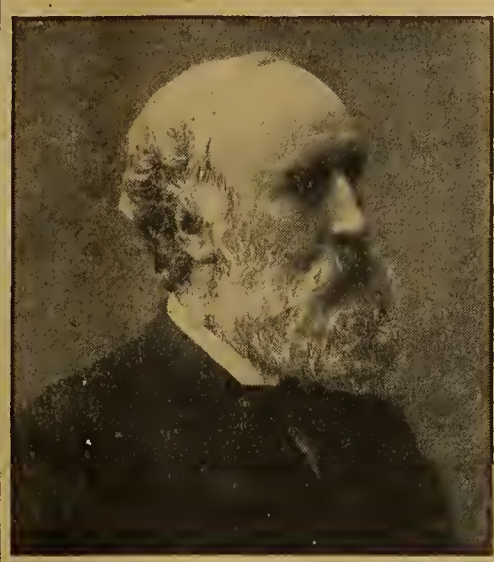
The Grange

By MRS. MARY E. LEE

DR. JOHN TRIMBLE

THE message of December 30, 1902, "Doctor Trimble died at 4 A. M.," brought sorrow to thousands of loving hearts. Ever since the meeting of the National Grange it has been known that his days were numbered, but all prayed that he might be spared to us a little longer, that one who had done so much for the cause of liberty and truth might see yet more clearly the result of his work. Who can tell but his pure soul beheld visions of the destiny of the order he helped to found and loved so well; saw the millions of men and women walking in a truer, nobler light, and in the vision found peace and joy?



DR. JOHN TRIMBLE

It is hard to separate the purely personal attributes that made Doctor Trimble so dear to his friends from those of a public nature that brought him the respect and veneration of mankind. He of all men, I think, lived both his public and private life so pure, so true, so far above reproach, as to draw all men unto him. Well could he say with Sir Galahad,

"I have within me the strength of ten,
For my heart is pure."

Doctor Trimble was one of the seven founders of our order, and for many years secretary of the National Grange. He has ever been an able and steadfast friend of agriculture; encouraging weak granges, fighting the battles of the farmers before legislative committees, ever ready with sympathy and encouragement to help on a weaker brother. For many years he has been the central figure of each National Grange session, and thousands of Patrons have visited the grange to hear the voice and grasp the hand of their benefactor. No one of his time has contributed more to the liberty of the people than he; none have been truer to their noblest interests. At his door can be laid no charge of insincerity, no accusation of subterfuge. That he was brave to the last degree none who read the beginning of the grange can doubt.

They who fight for humanity must bear humanity's scourge. They must have a lofty conviction of the divinity of their mission and a sublime patience to endure insults, neglect, opprobrium, from those for whom they labor. This lofty courage Doctor Trimble had. In the early struggles of the organization, when there was not a penny in the treasury, when men fell away from those who were fighting their battles for them, Doctor Trimble was none the less the noble Roman battling for right and light. Not once did he falter or lose courage. He fought as the gods fought against poverty, indifference, envy, strife, injustice and oppression. He treasured no wounds, harbored no ill feelings. He carried with him none of the scars of the battle. He was too unselfish for that, too nobly generous for self-righteous glory.

He is gone, but his memory will ever live in the hearts of his countrymen. His monument is found in the happy homes and hearts of the people. We quote from a letter from Major King the following tribute to our beloved brother:

"It is sad indeed to think that of the seven founders of the order all but Bro. O. H. Kelley, now of Carrabelle, Fla., have entered into the life beyond.

"Dear Brother Trimble was one of the most lovable of men, a Christian gentleman of the purest type, whose life was full of usefulness and characterized by a beautiful devotion to truth and duty. His kind heart and generous nature drew many to him, and his unselfish work in promoting the best interests of our order was known and read by all good Patrons who may have had the pleasure of his acquaintance. The influence of his unselfish work will long be felt, although he is no longer here. Generous to all in need, kindly in judgment, courteous by instinct, unobtrusive, but shirking no responsibility, his life was such that it has made a lasting impression upon all who knew him, and this recollection will remain like a benediction. He will be sadly missed by those who knew him best. May the sweet memory of the noble, manly life of the dear departed assuage in some degree the sorrow his departure from this life to that beyond has wrought."

"There is no death! The stars go down,
To rise upon some fairer shore;
The bright in Heaven's jeweled crown
They shine forever more.

* * * * * * *

"And ever near us, though unseen,
The dear immortal spirits tread;
For all the boundless universe
Is life—there are no dead."

TO POMONA GRANGES

The annual session of the Ohio State Grange being over, plans are in order for the ensuing year. It is hoped that Ohio will win first place among the states in the work of grange-extension for 1903.

In this proposed advance the district, or Pomona, granges must be an important factor in building up the subordinate granges in the various counties. The law defines the duty of Pomona as follows:

"They shall have charge of the educational and business interests of the order in their respective districts, and shall encourage, strengthen and aid the subordinate granges represented therein."

It is thus seen that Pomona should put her own house in order preparatory to grange-extension. Several of our strong grange counties have one or more weak subordinate granges within their borders. Whenever this condition exists it is the duty of Pomona to lend a helping hand. A dormant or dying grange in a community is an offense, as dead things usually are. It is well-nigh impossible to organize a new grange in the neighborhood of one that is half or entirely dead. Prominent members of Pomona, as well as of subgranges, should accompany the deputy upon his visits to weak granges, assisting him in all efforts to encourage, instruct and strengthen them.

Good comes from rotating the points at which Pomona meets in regular session. All Pomona granges are strongly urged to report promptly to the state secretary, that they may appear in the roster soon to be issued. This applies with equal force to the subordinate grange. The grange roster is the "Patrons' directory," and carries the names of all live, up-to-date granges.

The victories near and remote in the past should encourage an abiding faith in the future. The season for effective grange-work is at hand. The state master stands ready to coöperate with each earnest Patron in an effort to increase the numbers and extend the influence of our great order. Fraternally,

F. A. DERTHICK,
Master Ohio State Grange.

THE OBSERVATORY

If you won't "pull your weight" in humanity's cause, step aside. We advise you thus to save you rude jostling.

"Patrons, our fellow-men are alert in every other avocation. The world is moving by columns; let every loyal brother and sister 'fall in' and march forward to a farmers' organization that will include every worthy husbandman."—F. A. Derthick, in an open letter to Ohio granges.

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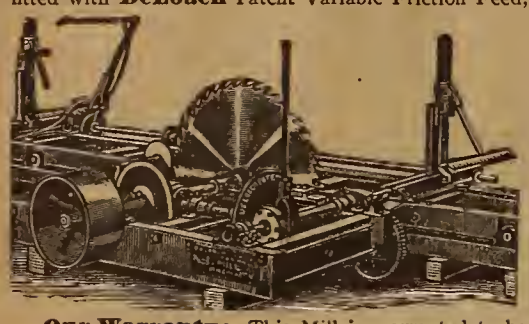

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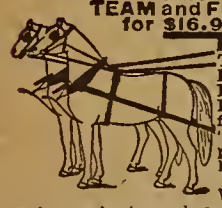

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Around the Fireside

THE CARDIFF GIANT

Hon Andrew D. White retells in the "Century" the story of the "Cardiff Giant," the most extraordinary hoax that ever showed the depth of human credulity. The external facts are that in the autumn of 1869 people were hastening from all over the country to a farm in central New York, to see the stone figure of a man of enormous size lying at the bottom of a hole where it had apparently been found.

The facts in human nature that made the hoax possible were the surprising readiness of the public to be astonished and swindled, the nonsense of the pseudo-scientific, who pretended to fix the age of this stone man, and surrounded him with all kinds of fictitious archæology, and the misguided religious zeal of people who thought this discovery confirmed the biblical text, "There were giants in the earth in those days."

A syndicate was formed to exhibit the giant. This meant a careful organization of all the lies that tended to support the genuineness of the "discovery," and to defeat the sensible incredulity that began to set in as a reaction. The giant had been "found" in the course of sinking a well. People discovered that it was an unfavorable place for a well, and began to question why any man should have started to dig there. Then it was found that the owner of the farm had sent to a man in the West several thousand dollars of the money received for admission fees to the booth where the figure was exhibited. How came a small farmer to owe so much money?

Real science uttered its protest. Professor Marsh of Yale pronounced the giant a humbug. It was not an ancient statue; certainly not a petrified body. "The giant must have been recently buried," he said. "I am surprised that any scientific observers should not have detected at once the unmistakable evidence against its antiquity."

Meanwhile Mr. Barnum tried to purchase the "giant," but in vain. So he had a copy made so like the original that only an expert could tell them apart. The new statue was also exhibited as the Cardiff Giant, and the matter had begun to be a comedy, with Barnum's eyes twinkling behind it.

Finally the truth came out. A man with a love of humor and a desire to test the extent of human credulity had deliberately set to work to dupe the public. He had chiseled this giant from a piece of stone that had blue veins in it—a great aid to the "petrified man" delusion—had pricked little pores all over his strange work of art, and had made grooves in it which looked like ruts worn by running water. Then he had shipped it to his brother-in-law, the New York farmer, who had sent his family away at the time so they could swear they had first seen the giant resting in his "grave."

Although this celebrated hoax had long passed out of the public mind until Mr. White's article recalled it, the man who perpetrated the hoax was living until very recently. His death occurred not long ago.—Youth's Companion.

AN OPTIMISTIC OBSERVER

"I used to tremble," said Mr. Jimson, "every time I heard of another invention. First there was the mowing-machine. Thinks I, 'Good-by to the poor boys that have been making a living working on the farms.' But I can't see's it ever made any difference so far as needing help is concerned.

"Then we got the reapers and binders, and these thrashing-machines that do the whole thing at once. Well, when they began to come along I says, 'This is the end of it for the farm-hand. He may as well go away somewhere, and lie down and die. There isn't any use for him any more.' But farm-hands seem about as scarce as ever, and mebbe a little more so. So I've just made up my mind that I am not going to worry any more about it. Let the inventors keep on inventing all they please. I guess there'll be something for the rest of us to do, no matter how many patent rights they keep getting out.

"Why, look at those automobiles! When they first got to racing 'round, Judd Hawkins says to me, 'Josh,' says he, 'I guess this is going to end it.'

"'How so?' says I.

"'When they get to running wagons without horses they won't need hay or oats,' says he, 'and those are the things where the farmer makes most of his money, because they're the easiest to raise.'

"'Don't you worry,' says I. 'You just wait, and see what happens.'

"And now look at it!" continued Mr. Jimson. "Here they've got so many automobiles and electric things kiting 'round you wouldn't hardly think that the horses could keep from feeling lonesome, 'specially in the cities, but oats are higher'n I ever heard of 'em being before.

"You can't make me believe that God Almighty is going to let a few inventors down here upset his whole calculations, and leave a lot of stuff lying 'round useless to spoil, so I'm not going to worry about it again."—The Record-Herald.

CURIOUS AND WONDERFUL

The largest library in the world is that of Paris. It contains upward of two million books and one hundred and sixty thousand manuscripts.

The same species of flower never shows more than two of the three colors red, yellow and blue. Roses, for instance, are found red and yellow, but never blue; verbenas are red and blue, but not yellow; pansies are yellow and blue, but never red.

The date of the Deluge is given variously by various chronologers. According to Usher, it occurred in 2348 B.C.; but fourteen other authorities place the cataclysm as follows: One in the thirty-second century, five in the thirty-first century, one in the twenty-ninth century, one in the twenty-sixth century, four in the twenty-third century and two in the twenty-second century B.C.

There are some Indians in Mendocino County, Cal., that may not live "in clover," as we understand the phrase, but it is certain that they live on it. Strange to say, they make it a regular article of food, going out into the fields and pulling up the plant, and eating it by handfuls—leaves, stems, flower-heads and all. These same Indians use many plants that white men find no value in, among them seaweeds, fungi, lichens, ferns and conifers. Some of these they use for their medicinal properties, others for the nutritious qualities of their seeds, and still others for their fibers.

THE ILLUSTRATED-PROVERB GAME

The following will be found amusing as one method of entertaining a small party of guests:

Use cards four by five inches. On each card write one well-known proverb, leaving all other numbers blank. For instance, opposite No. 1 on the first card write "It is never to late to mend." On the second card leave No. 1 blank, and opposite No. 2 write "It never rains but it pours." Fill in No. 3 on the third card with "Make hay while the sun shines." Continue thus until each card contains a proverb, using as many numbers as you have guests. An ordinary child's blackboard, placed on an easel and provided with crayon and an eraser, should be at hand. Each guest is to represent by a drawing or sketch on the blackboard the proverb written on his card, and all the other guests are to guess what proverb the drawing represents, and write their guesses in the blank spaces opposite the proper numbers on their cards. At the close a prize may be awarded for the best drawing, and also a booby prize for the poorest. A small five-cent tracing-slate makes a good booby prize.

J. M. Phelps.

WISE AND WITTY SAYINGS

A fib is a lie painted in water-colors.

Time is money, and many people pay their debts with it.

Mice fatten slow in a church. They can't live on religion any more than ministers can.—Selected from the writings of Josh Billings.

From Farm Hand to Bookkeeper

My work previous to enrolling in the International Correspondence Schools was principally as a factory and farm laborer. In beginning your Bookkeeping and Business Forms Course I had no knowledge of the subject, and could scarcely write with a pen. It was frequently necessary for me to send to the Schools for additional information, and I am sure the teachers must have taken great pains with me, for all my questions were fully explained, and made clear in every particular. Last August I accepted a position as bookkeeper and manager in a fruit canning factory. The Course has been of real and true benefit to me, and I will gladly recommend the Schools to any one who inquires about them.

WALTER MORSE, *Coopstown, Md.*

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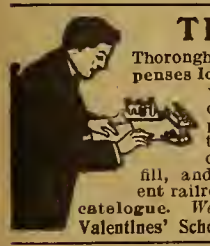

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Sunday Reading

Can I have the thing I pray for?
God knows best.
He is wiser than his children;
I can rest.
Do I need this extra schooling?
I shall see
In the reconciling future
What for me
Was the best his love designed.
Something good
Out of all the sorrow cometh;
Understood
Will it be, when later
At thy feet
We shall learn his blessed purpose,
Love complete.

—Sarah K. Bolton.

THE VALUE OF SUNLIGHT

ONE of the greatest cures at the sanatoriums established all over the country is the simple sun-bath. The solar heat gives to the whole system a strength and vigor which no nourishing food can impart. It is so essential to our health and happiness that when it is taken away from us we become weak, run down and pale; but when we go out into the warm sunlight again, new strength and health come to us. The sun-bath is essential. Take it every day. Cut down the trees that are so close to the house that they obscure the sun, and have every living-room flooded with light. If one is forced to stay indoors all day, try to get near the sunny window, where the full effects of the sunlight can be felt. It will cure neuralgia, nervousness, faintness, weakness and a dozen other complaints. It will give color and beauty to the complexion by making the blood better and purer. The purest and prettiest complexions are those which are wind-swept and sun-browned during the summer-time, and not those which come from a dark room.—Morning Star.

GOOD INTENTIONS

"Our minister did not take any vacation last summer," said Brown, with a smile, as he began a conversation which the Detroit "Free Press" reports.

"Why not?" asked the other man.

"Circumstances over which he had no control forced him to stay at home," replied Brown. "He intended to go away, and had made arrangements, when several enthusiastic members of his congregation—my wife was among them, and the others were all women, too—took the matter out of his hands, and told his wife 'confidentially' not to pinch and save for his outing, because the members of the church had hit upon the happy idea of raising a sum for his vacation.

"As the minister has a large family, and his wife finds it hard to make both ends meet, she was only too glad to spend the vacation-money in other ways.

"Well, the women held several 'affairs,' and managed to get something over fifty dollars together. Then they decided to make the presentation a gala event, and give all the members of the church a chance to speed the parson on his way with good wishes.

"It occurred to them that a little music would add to the occasion, and so they engaged some musicians. One member of the committee thought that if there was music, light refreshments would be in order, and she took it upon herself to see that they were provided. A third hit on the plan of having the church decorated for the occasion, and hired a man to do the work.

"Early in the evening, when they met to compare notes, they discovered that their expenses had not only eaten up the amount that they had raised for the minister, but left them a matter of two or three dollars in debt.

"Oh, yes, the evening was a pleasant one to some, but there wasn't any presentation. On the way home I asked my wife who was going to square the debt.

"'Why, Joseph,' she said, 'what a question! The minister, of course. It was all done in his interest.'"

All who joy would win
Must share it—
Happiness was born a twin.

—Byron.

THOUSANDS HAVE KIDNEY TROUBLE AND DON'T KNOW IT

To Prove What Swamp-Root, the Great Kidney Remedy, Will Do for YOU, Every Reader of the Farm and Fireside May Have a Sample Bottle Sent Free by Mail.

Weak and unhealthy kidneys are responsible for more sickness and suffering than any other disease; therefore, when through neglect or other causes, kidney trouble is permitted to continue, fatal results are sure to follow.

Your other organs may need attention—but your kidneys most, because they do most and need attention first.

If you are sick or "feel badly," begin taking Dr. Kilmer's Swamp-Root, the great kidney, liver and bladder remedy, because as soon as your kidneys are well they will help all the other organs to health. A trial will convince any one.

The mild and immediate effect of Dr. Kilmer's Swamp-Root, the great kidney and bladder remedy, is soon realized. It stands the highest for its wonderful cures of the most distressing cases. Swamp-Root will set your whole system right, and the best proof of this is a trial.

14 West 117th ST., NEW YORK CITY.
DEAR SIRS: Oct. 15, 1901.
"I had been suffering severely from kidney trouble. All symptoms were on hand; my former strength and power had left me; I could hardly drag myself along. Even my mental capacity was giving out, and often I wished to die. It was then I saw an advertisement of yours in a New York paper, but would not have paid any attention to it had it not promised a sworn guarantee with every bottle of your medicine, asserting that your Swamp-Root is purely vegetable, and does not contain any harmful drugs. I am seventy years and four months old, and with a good conscience I can recommend Swamp-Root to all sufferers from kidney troubles. Four members of my family have been using Swamp-Root for four different kidney diseases, with the same good results."
With many thanks to you, I remain,
Very truly yours,
ROBERT BERNER.

You may have a sample bottle of this famous kidney remedy, Swamp-Root, sent free by mail, post-paid, by which you may test its virtues for such disorders as kidney, bladder and uric-acid diseases, poor digestion, when obliged to pass your water frequently night and day, smarting or irritation in passing, brick-dust or sediment in the urine, headache, backache, lame back, dizziness, sleeplessness, nervousness, heart disturbance due to bad kidney trouble, skin eruptions from bad blood, neuralgia, rheumatism, diabetes, bloating, irritability, worn-out feeling, lack of ambition, loss of flesh, sallow complexion or Bright's disease.

If your water, when allowed to remain undisturbed in a glass or bottle for twenty-four hours, forms a sediment or settling,

or has a cloudy appearance, it is evidence that your kidneys and bladder need immediate attention.

Swamp-Root is the great discovery of Dr. Kilmer, the eminent kidney and bladder specialist. Hospitals use it with wonderful success in both slight and severe cases. Doctors recommend it to their patients and use it in their own families, because they recognize in Swamp-Root the greatest and most successful remedy.

Swamp-Root is pleasant to take and is for sale the world over at druggists in bottles of two sizes and two prices—fifty cents and one dollar. Don't make any mistake, but remember the name, Swamp-Root, Dr. Kilmer's Swamp-Root, and the address, Binghamton, N. Y., on every bottle.

SPECIAL NOTICE.—If you have the slightest symptoms of kidney or bladder trouble, or if there is a trace of it in your family history, send at once to Dr. Kilmer & Co., Binghamton, N. Y., who will gladly send you by mail, immediately, without cost to you, a sample bottle of Swamp-Root and a book containing many of the thousands upon thousands of testimonial letters received from men and women cured by Swamp-Root. In writing to Dr. Kilmer & Co., Binghamton, N. Y., be sure to say that you read this generous offer in the FARM AND FIRESIDE.

REGISTRATION APPLIED FOR.

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Girls, Do you wish to earn a beautiful Bisque Doll, also a lovely bracelet and ring? If so, send us your **FULL** name and address and we will send 20 cards of our jewelry novelties, postpaid, sell them at 10 cents per card and return us $2.00, and we will send you, all charges prepaid, one of the most beautiful dolls ever given away, together with a beautiful turquoise bracelet and a gold finished ring. This doll is nearly

ONE-HALF YARD TALL

and has a turning bisque head, lovely curly hair, pearly teeth, natural sleeping eyes, jointed body, real slippers, stockings, etc., and is completely dressed from head to foot. Understand this is not a printed cloth or rag doll, or a cheap plaster of Paris doll, such as some concerns give, but a real sleeping **BISQUE DOLL** nearly

ONE-HALF YARD TALL

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The Housewife

THE GINGERBREAD VALENTINE

On the morning of the fourteenth of February there was a great scampering and fluttering among our youngsters when the postman, with his mail-sack stuffed full of valentines, rang at the door. A bunch of gaily flowered and fanciful envelopes was handed in, and one brown-paper parcel tied with twine. We opened all the others, but saved the parcel as the most interesting for the last. Isabel received a pretty painted heart with this sentimental verse:

"I prythee send me back my heart,
Since I cannot have thine;
For if from yours you will not part,
Why, then, should you have mine?"

The next one, addressed to mother, our best sweetheart, proved to be a handsome sachet-bag of purple satin on which violets were painted. It was accompanied by a card bearing these words:

"There is a lady sweet and kind,
Was never face so pleased my mind;
I did but see her passing by,
And yet I love her till I die."

The third one, for our butterfly, Gladys, had these lines hidden under a cupid's wing:

"May I, can I, dare I own
This dearest wish of mine?
'Tis to persuade this little maid
To be my valentine."

Roseann's valentine had just one rose, with these sweet words:

"Go, lovely rose, tell her I love her."

Richard received a card with pictured hearts and key and this jolly little rhyme:

"My heart to you is given,
Oh do give yours to me!
We'll lock them up together,
Then throw away the key."

Elizabeth's valentine had the prettiest little girl looking out of a latticed window, and these honeyed words with it:

"To see her is to love her,
And love but her forever,
For Nature made her what she is,
And never made another."

We next came to a very handsomely engraved card with St. Valentine's greeting, addressed to father and mother from Uncle Will in Switzerland. This is the fashion there, and saves the trouble of looking up verses.

At last came the brown-paper parcel, addressed to Tom in Aunt Melissa's handwriting, and certainly it was the most curious valentine of all. Inside the brown-paper wrapping was a neat white box, and inside the box white tissue-paper, and unfolding the tissue-paper Tom came to a large gingerbread heart frosted on both sides with pink frosting and tied with rose-colored ribbons. It was enough to make any boy's mouth water, and Tom is so fond of gingerbread he never can get enough, so we all began to laugh. Under this gingerbread valentine was a slip of paper, and opening it, this is what Tom found in Aunt Melissa's neat handwriting:

A GINGERBREAD STORY

Bobby Brown fell ill—so very ill that his mother hurried him away to the doctor.

"What is the matter?" growled the doctor. It was just his lunch-time, and he looked at Bobby as if he could eat him up.

"He is so thin—he don't weigh more'n a bushel of wheat, and he is so weak his legs bend under him like bow-legs, and he hasn't any appetite—he never eats anything save a bite now and then between meals—" and here Bobby's mother paused to wipe away the tears that were springing into her eyes.

"Bite of what?" growled the doctor.

"A ginger cooky," said Bobby's mother, sighing dreadfully. "That's all he ever eats—a ginger cooky."

"How many ginger cookies do you bake in a week?"

"Not more'n a milk-panful. It might be a hundred, or more or less."

"Do you eat ginger cookies?"

"No."

"Does your husband eat ginger cookies?"

"No."

"Then this boy eats a whole milk-panful of ginger cookies in a week!"

LUNCHEON SET

"He doesn't eat anything—anything else," gasped Bobby's mother, for the doctor's voice was frightful by this time, and his eyes blazing.

"Will you tell me, madam, what kind of a body you expect this boy to build out of ginger cookies? What kind of a brain, what kind of a heart, what kind of bones, will he have made out of ginger cookies? Don't you know that too much sweet stuff softens the bones? No wonder his legs bow under him and his teeth are crumbling. They are made out of ginger cookies. Take your boy home, madam, and let him starve. When he is willing to eat regular meals of good bread and milk, oatmeal cakes and bean porridge, he will grow strong and well, and you will be able to make a man of him."

Tom ate the frosted gingerbread heart all up, and never gave Richard or me a crumb, which we thought was pretty mean of him. He then wrote Aunt Melissa a love-letter, and promised that he would try to never eat gingerbread and ginger cookies any more. He kept his word, for mother stopped making them. So little boys who love cakes must take warning by this and stop in time.

FRANCES BENNETT CALLAWAY.

LACE CENTERPIECE

ART OF BED-MAKING

"You are the first woman I have seen make a bed right since I came out here," was the remark I made to my landlady. She is a maiden lady from the Nutmeg State, and inclined to be a little "persnickety" when it comes to housework.

"Well, I do like big sheets, so they will tuck in," she replied.

That is just where the trouble lies when it comes to properly making a bed. The sheets are too short, as also the blankets and spreads. The proper length of a sheet for a full-sized bed is not less than two and one half yards when finished, and could be two and three fourths yards and not be too long. This allows for plenty to tuck in at the foot, and thus avoid the unpleasantness of your toes sticking out in the cold before morning.

Have a thin mattress spread made of one thin layer of cotton covered both sides with white cheese-cloth, and it will wash just as easy as a sheet without taking apart. Make it big enough to tuck in some all around. Then have your bottom sheet large enough to tuck in all around the bed, especially at the head-board, and more so at the foot, for it is rather unpleasant to have the lower sheet roll up and catch your feet in it. Make this up nice and smooth, turning the corners square. Put your upper sheet on so there is at least half a yard to turn under at the foot; next your blankets smooth and tucked in plenty at the foot, then your comfort. Now turn the top sheet over at the head (where it is turned over should be about a foot from the head-board), smoothing it nice and tucking it in good. Put your spread on so that it will tuck smoothly in at the foot, and it should be long enough to tuck a little at the head-board, thus making your bed look smooth and taut. The turning of the sheet over at the head enables you to turn the bed back at night without pulling the under sheet and mattress spread all up, too, which invariably happens when you leave the covers straight up, and it helps to make the bed smoother-looking by turning the sheet over.

I pride myself on my bed-making, and the aforesaid landlady has told me that she never saw any one's bed look as smooth as mine. It is due to tucking in the spread smooth all around. With your pillows nice and white, set up straight, the bed does look pretty; very much more so, I think, than those with colored covers and rolls for pillows. However, it is a mere matter of opinion. Try my way of making your bed, sisters, and I'll warrant you will like it.

Another peculiar feature I found was that an old housekeeper we had was in the habit of putting the blankets on the bed with the open ends at the foot. I could hardly convince her that it was better to put them the other way. If it was too warm for double weight, one thickness could be thrown back, whereas if she had the double ends at the head of the bed you would have to throw back the whole blanket. Then, too, she insisted that the clothes should all be up around your neck, and no matter if they did pull out at the foot, you could curl up and keep your feet warm. No, thank you, I prefer to have them tucked in good and tight at the foot, and crawl down if necessary. W. D. MARSH.

The foolish habit of "catching cold" continually can be broken as well as not.

In cold weather the windows of a room should be thrown wide open at least once every hour, and the air allowed to sweep through. Let the money now expended in "cold-cures" and doctors' bills be put into more fuel, so as to keep houses sufficiently warm to allow of proper ventilation.—What to Eat.

FLORAL BUTTERFLY PLANT

No plant possesses so many good points as do these two glorious new Commelinas. Of gracefnl trailing habit, superb for carpet bedding or for hanging pots. *In pots they bloom every day in the year.* In the garden from May until frost, showing *daily* seq"es of large winged butterfly-like blossoms. Color (No. 1) the most beautiful blue to be found in any flower. A shade so exquisitely lovely as to baffle description. Thrives in sun or shade, wet or dry, rich or poor soil; as easily raised as a weed from seed or cuttings, grows rapidly, flowers at once, and propagates so easily that plants are very cheap. Blooms in 50 days from seed.

No. 1—Exquisite Blue, like tropical Butterflies.
No. 2—Rosy Pink, in other respects like No. 1.
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Pansy,	10	Candytuft	10	Four O'clock.	
Bat. Button,	10	Morn. Glory,	6	Marigold,	13
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Sweet Peas.		Zennia,	12	Petunia,	10
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All of the above sent to any address, post-paid, for 10c. silver or six two-cent stamps. As a premium, and to introduce our seeds into every household, we will also send a collection of fine beautiful bulbs free *with Catalogue.*
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The Farmer's Wife

usually selects the garden seeds for the family garden. The garden is her pride, while the farmer has his larger sphere of operation. Do not use "store seeds" this year but send for one of our large illustrated catalogues of pure, true to name, fresh seeds of sure vitality. We sell direct from the grower to the nser at bargain prices, two cents per packet and upwards. Beautiful catalog mailed free if you mention this paper.
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If afflicted with weak eyes use **Thompson's Eye Water**

The Housewife

WHEN PA SAYS GRACE

When pa says grace,
He looks up, like the world to him
Was full of good things to the brim,
His eyes are like an angel's, while
The sweetest, most forgiving smile
Is on his face.

He takes his place
Before the goodies ma has spread,
As if upon each dish he read
Some pious message from above,
An' every glance seems full of love
When pa says grace.

An' yet he'll chase
The cat down-stairs, an' slam the door,
An' growl at every one before
The meal-time comes, an' often jar
The air with words not like they are
When he says grace.

Ma says the trace
Of that sweet spirit which reveals
Itself in thankfulness at meals
Is everywhere, an' ought to be
At all times present as when we
Are sayin' grace.

An' in that case
I'm 'clined to think, rememberin' how
Pa frets an' ruffles up his brow
When he sifts ashes or saws wood,
It's appetite makes him feel good
When he says grace.

—Boston Courier.

CHILD'S KNITTED CAP

To prevent colds, earache and catarrh, small children should always wear a close cap in cold weather.

Use for the cap illustrated two cuts of white Germantown wool and two No. 11 needles.

Cast on seventy-two stitches, and knit one inch of ribbing, three plain, three purl, then one row in plain knitting. Then make one row of holes thus: Wool forward, knit 2 together, knit 1. Knit one row plain. In the next row knit 40, turn, and knit 8, turn, and knit 12; work in this manner, making four more stitches each time, until you have "turned and knitted" thirty-six, then turn and knit to the end, and knit one row back.

CHILD'S KNITTED CAP

For the shaping of the crown of the cap, * knit 36 (this is the middle of the cap), turn, and slip 1, knit 1, slip and bind, knit plain to the end, knit back 35; turn, and repeat the last two rows until twelve stitches have been slipped. In the twelfth repetition pick up those twelve, which will bring you to the center of the cap again; repeat from *. At the second time of working the twelfth repetition work to the end of the entire seventy-two stitches, and work on the thirty-six stitches of this side of the cap in the same manner as the first thirty-six, beginning from first * and repeating twice.

When the second repetition has been finished, sew the two sets of thirty-six stitches up the back of the crown and along the top of the head. Pick up the stitches along the front from one edge of the ribbing to the other, and knit one row plain. Make a row of holes as in beginning, knit two rows plain, and bind off. Run ribbons in front and back. M.

A PRETTY DISH

This makes a good salad in the wintertime, and is also decorative to your table. Take large, smooth beets, and boil until thoroughly cooked, then scrape off the skin. Scoop out the middles of the beets, taking care to preserve their shape and not break them, and let them get cold. Chop half the beets thus scooped out, and mix with as much minced ham, tongue, or both mixed, and a little parsley chopped fine. Season with salt and pepper, a dash of cayenne pepper, and pack into the beet-cups. Place the beets on crisp lettuce-leaves, and pour a mayonnaise dressing over them. This salad should be thoroughly chilled before serving, as all salads are much more palatable when served cold. W. D. Marsh.

TOASTED BREAD

The bread should be stale, cut in thin slices, and dried thoroughly before browning it. The object of the toasting is, primarily, to take out all the moisture, for health's sake; secondarily, to brown it, for the palate's sake.

When well dried it can be the more thoroughly moistened with the saliva, and thus more easily digested.

It is a mistake to take new bread and expose it to a hot fire, where it will become browned, if not blackened, on the outside, while the inside remains a doughy mass. Butter spread on such toast becomes an indigestible oil, which adds just so much more to the already indigestible mass.

Bread toasted as it should be is not only very palatable, but also very healthful. It is sometimes spoiled after being rightly prepared. It must not be laid one slice above another, for it steams in this position, and a clamminess results. It must be moistened at once with a little hot water or milk, then buttered; or, if preferred, it can be simply buttered when it can be thoroughly acted upon by the saliva and other juices necessary to digestion.

Ella Bartlett Simmons.

HOW TO SERVE ORANGES

For a dessert nothing is more attractive and at the same time palatable than oranges served in this way: Select oranges having fine skins, cut away one third from the end of each orange, and with a spoon remove all the pulp. Use only the larger parts, cutting the edges in small points. Put the skins in cold water until ready to serve. Press the juice from the pulp with a vegetable-press. There should be about one pint of juice to six oranges. Add to this quantity the juice of two lemons and one cupful of sugar. Have ready half a box of gelatin soaked in a scant cupful of cold water and dissolved in half a cupful of boiling water. Strain the gelatin into the juice, stir until the sugar is dissolved, and set away to chill. When ready to serve arrange the skins on a suitable dish collectively, or place on separate plates to be served individually, then fill them with the jelly cut in cubes, and decorate with whipped cream and candied cherries.

Mrs. J. R. Mackintosh.

Isn't candy injurious? Just so far as it is adulterated. The vilest mixtures are sold by some candy-factories, and sanitary legislation has not yet stamped out the practice of coloring sweetmeats with poisonous pigments; but we might as well preach against bread, because bakers mix their flour with alum.—What to Eat.

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I can testify that the 1900 is the best washer and the easiest running machine. It will **absolutely clean** the clothes, cuffs, and bottoms of ladies white skirts better than can be done by hand. The washings that took my wife from 5 to 7 hours to put out by hand, can easily be done in 2 hours. R. A. SKINNER.

Kensee, Ky., March 21, 1900.
I did a double washing for myself yesterday and made 65 cts. from my boarders, besides all my cooking, milking and housework. It takes less soap with your machine than in the old way. I have no need of the washboard any more. Mrs. L. A. BARTON.

Onalaska, Wis., Jan. 4, 1901.
We are a family of 5 and as I had a 3 weeks wash it was an immense one. Had it all out in 3 hours and never had nicer looking clothes. I did not even put my hands into the water. I cannot too strongly recommend the "1900" washer. Mrs. J. M. WILSON

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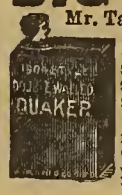

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Josephine

Winning a Cold Sweetheart and a Sunny Home

By FRANK H. SWEET

CHAPTER III.

NEW RELATIVES

THE boatman watched them with a broad grin until they left the wharf. Apparently he thought they were affecting indifference for his benefit, but when they turned to the left, entering the path which wound along the shore of the lake, his manner suddenly changed.

"Hi, there! where ye goin'?" he yelled. "Don't ye know there's pizen snakes an' all sorts of reptiles in them brush? I've heered rattlers clean off my boat sometimes. Hi! hi, there! hi!" he yelled again, as they kept on unconcernedly, "can't ye hear nothin', ye idjuts? Pizen things! 'Gators! Rattlesnakes! Swamps an' bogholes! Yah! yah! yah!"

They paid not the least attention.

"Sa-ay!" came a long, hoarse yell presently, "I'll take ye 'cross the lake fer four dollars!" There was another brief, expectant pause, then he called, "Fer three dollars!—two dollars!" and finally, as they were passing out of sight behind some shrubbery, "fer one dollar, an' blame take ye!"

Not until they were entirely concealed from the lake by intervening vines and shrubs did Josephine dare to look at her companion. When she did so her eyes were full of laughter, and she was clapping her hands softly together.

"Oh, dear!" she gasped. "Can you imagine the state of mind our poor boatman is in just now. It's mean in me, of course; but I did enjoy his yelling and increasing anxiety. I would like to have one good peep at him now, while he is realizing his loss of even the extra money you had promised him. What a wretch he was!"

Spencer smiled down at her. "He was rather mean," he admitted; "but I guess we've had our revenge. At any rate, I'm ready to forgive him in view—"

Josephine held up her finger. "Don't," she entreated; "I'm anticipating a delightful half-hour's walk over entirely new ground. It isn't nice of you to begin spoiling it at the very start. Look what a pretty place that is ahead! Do you know who lives there?"

They had been passing between straggling banks of high palmetto and loblolly-bay, interspersed with cacti and other odd growth, and with only brief glimpses of the blue water of the lake. The path was clean and well defined, which indicated that it was much traveled; and indeed, considering the newness of the country, this side of the lake was already successfully bidding for its share of the popular favor. The Barton place was only a few rods behind, and here they were emerging upon the lawn of a pretty but inexpensive cottage. There were also other cottages and pineapple-plantations beyond.

"No, I don't know who lives here," said Spencer in answer to Josephine's question, "except that it is a Northern widow and her daughter. The place was sold last spring, and an item in the paper stated that the new owner intended to put in an acre or two of pineapples. Pineapples are proving very profitable along the lake, I believe. I have seen one or two negro hands about the place, and imagine the new owner is quite a business woman. The item stated that she was from Tarrytown."

"Why, that's our old home place!" exclaimed Josephine, with sudden interest. "I wonder if mama or I know her."

"I think that must be the daughter now," said Spencer; "the girl who is bringing a basketful of pineapple slips from the house. They've plowed up part of the lawn, and evidently are intending to set that to pineapples, too. The girl has on a sunbonnet, but she does not walk like a servant. There, she is looking toward us now."

It was only a momentary glance, however, averted almost instantly. The girl then set her basket upon the ground, and dropped on her knees beside it.

Spencer watched her critically for a few seconds, then laughed. "She's an amateur at slip-setting, at any rate," he said. "A veteran would drop those slips along the rows first, then walk upright with a long stick having a little fork at one end. At every jab of the stick a slip would be pushed into the ground. He could set twenty while this girl is finishing off one. I watched a man doing it a few days ago, thinking I would put in several acres myself when I got the Barton land. The man's vivid account of profits to be had made me think how convenient such profits might be to us later—to me, I mean. But how intent that girl is upon her work. She has forgotten our presence entirely."

But he was mistaken in this. The path led directly by where the girl was at work, and the face inside the sunbonnet was flushed with an impatient consciousness of their approach. It was by no means the first time the face had been concealed by a sunbonnet, nor the first time its owner had worked in an open field like this, and it certainly was not the mere fact of being seen by strangers that caused the head to bend lower.

"You are mistaken, Spencer," said Josephine, in a low voice, as they drew near; "that girl's a cracker who works here. No one who has been used to people would be so embarrassed. See how she drops her head." Then she said to the girl, as they stopped beside her, "Would you mind us watching you a few moments? Pineapples are such interesting things. We don't have them away up North, you know."

"Yes, I have heard people say so," came in almost a whisper from the sunbonnet. At the sound of the voice Spencer started a little, and a smile twitched the corner of his mouth. If there was embarrassment in the voice, there was also amusement. Could the girl be laughing at them? He stepped a little nearer, but could not see her face. "You may watch me if you want to," the voice went on, "but if you wish to learn anything about pineapples I would advise you to go around to the back field where the negroes are at work. They understand it better than I."

"You are doing very nicely, I'm sure," smiled Josephine. "But how white and pretty your hands are! How do you keep them so? Do you wear gloves?"

Spencer noticed a striking resemblance between them

"No, I haven't worn any so far," was the answer.

"How funny! I don't see how you do it. My hands are as brown as an Indian's from playing golf. See," and she thrust out her hands for the girl's inspection.

The sunbonnet, however, did not lift.

"I understand your mistress is from my own town," Josephine went on, without seeming to notice. "What is her name, please?"

For a moment there was no answer, then the girl said in almost inaudible tones from the sunbonnet, "Mrs. Carruthers."

"Not Mrs. Helen Carruthers?"

"Y-es."

Josephine whirled toward her companion. "Now stay here a few minutes," she cried, joyously; "I must run up to the house. It's my Aunt Helen, whom you've heard me speak about. We didn't know what in the world had become of her. Is Cousin Mabel in the house, too?" she asked the girl. "What, you? Oh, Mabel!" She sprang forward, but stopped suddenly, her eyes dilating.

The girl was erect now, her sunbonnet pushed back, her eyes flashing indignantly. "Yes, I'm Mabel," she said, slowly, "and mother is in the house. But you mustn't go there. Mother has a bad headache, and is nearly ill. She has had trouble enough. We knew you were at the hotel. I recognized you as soon as you left the shrubbery just now, but hoped you would pass by without noticing me. I don't mind for myself, but I do not intend to allow mother to be mocked. She has suffered too much now."

"Oh, Mabel!" Josephine repeated, "I don't understand! What does it all mean?"

"Mean?" repeated Mabel, scornfully. "You may well ask that! Didn't you return my letter unopened? I wrote before I knew how matters stood, otherwise I would have cut off my hand before asking you for assistance. Didn't Aunt Margaret return mother's letter after she had read it, with a note stating that as we didn't know how to take care of money—our own money, mind you—no more would be sent us? Mother would starve before entering upon a lawsuit with anybody, much less her own sister. So we came here."

"I don't understand it a bit, Mabel," Josephine faltered. "I never returned any letter of yours. I wondered where you had gone, and why you didn't write. It is all some terrible mistake."

The girl smiled bitterly. "It has all been very real to us," she said. "Didn't you know that your mother took charge of your grandfather's property, and that she dealt our portion out to us in the tiniest driblets?"

"I knew mother had most of your portion, certainly, but I thought it was at Aunt Helen's desire for my mother to invest it. Mother's a good business woman."

"Didn't you know," the girl went on, stonily, "that father became badly involved in business before he died, and that all mother's private fortune, to the last cent, went toward paying the debts? Even then there was not enough, and mother wrote for her share of grandfather's property. While waiting for that, I made my request for a loan of fifty dollars, to meet actual living expenses. I did it because I knew you had private means of your own, and because you and I had often exchanged little accommodations of the sort. I never dreamed it could be regarded as—as—" She caught her breath sharply, and again her voice grew bitter. "My letter to you came back unopened; mother's came back with the note of which I spoke. Aunt Margaret was angry because we had insisted on paying papa's debts, I suppose. But I don't know why I'm telling you all this," breaking off suddenly. "You are familiar with most of it, of course, and the story is not a pleasant one to dwell upon."

"I am familiar with some of it," said Josephine, her face very white, but not all. I knew about Uncle Henry's debts, of course, and about mama's investing Aunt Helen's share of the property, but that is about all. You must tell me the rest now—everything. Go on, dear."

Mabel started at the last word, then her lips grew hard. "We closed out as quickly as possible, and got away," she continued, coldly; "furniture, jewels, piano, books, everything. They brought enough to satisfy the creditors. Then we came down here. Grandmother gave me her old china, you remember, which she brought from Scotland. I sacrificed it to a dealer for two thousand dollars, and bought this place. The house is hardly fit to live in, but there are three acres of land—enough for us to get a living from, I think."

"And you believed that I returned your letter unopened, dear?" asked Josephine, reproachfully. "How could you, Mabel?"

"How could I help it?" said Mabel, drearily. "Everybody seemed to turn against us after father's death—mother's friends and my friends. Mother was not strong, and I could see the worry was killing her. I saw that I must stand between her and such friends, between her and everything that was annoying, and fight them all away. I have been fighting them away ever since. Maybe it has made me uncharitable; I don't know. But it has been hard, hard, hard." She reeled, and would have fallen had not Josephine caught her suddenly and held her close, the pitiful tears welling into her eyes.

Spencer turned away abruptly, and walked down to the lake, and from there into the undergrowth. When he returned, a half-hour later, the two girls were sitting on the steps of the tiny piazza, with their hands clasped. As he approached, Spencer noticed a striking resemblance between them, but Mabel was the fairer of the two. Indeed, even with her pallor, he thought her the most beautiful girl he had ever seen.

[TO BE CONTINUED]

TO NATURE

Thou art a friend that ever bides with me,
Steadfast as sun to-day or moon to-night,
Or as the stars which shed revealing light
O'er dusky meadow and mysterious sea.
Many wise lessons have I learnt of thee:
The winds have been my teachers, and the flowers,
The snows of winter, and the vernal showers,
And white clouds sailing tranquilly
Above my head, 'cross heaven's radiant face.

—Chambers' Journal.

CONSTANCY

True as the dial to the sun,
Although it be not shined upon.
—Butler.

Only a sweet and virtuous soul,
Like seasoned timber, never gives.
—Herbert.

Whose worth's unknown, although his height be taken.
Love's not Time's fool, though rosy lips and cheeks
Within his bending sickle's compass come;
Love alters not with his brief hours and weeks,
But bears it out even to the edge of doom.
—Shakespeare.

THE RETURN OF JOHN TOWNLEY

BY S. T. STERN

It was late on a Sunday afternoon in dying November that John Townley passed along the elm-lined street of his native town. He walked along the familiar thoroughfare unnoticed and forgotten. Over in the west the sun glowed red, and etched sharply the intervening bare blackness. No one knew him—not one. Past the church whence issued those who had been his friends; along the highway where drove those who had known and cherished him, he walked slowly and unrecognized.

The familiar houses seen dimly through the gathering gloom looked down upon him. Here was a new one, and palatial. There marked the former residence of Joseph Duncan, preacher. Closed and deserted! Further on he came upon the house that had sheltered him during the happy days of his boyhood. There were children playing in the garden, and a mother watching them from the porch in front. Strangers all!

Wondrous and complete were the changes wrought in the ten years of his absence. Ten years! Long, weary months and days, for John Townley had spent those ten years in prison. He shuddered at the memory of it. He was back again, a free man whose innocence had at length been established by the death-bed confession of a shamed reprobate. And yet no one knew him.

He crossed the main street, and his footsteps led him to the further side of the town. There was a house on the other side of the town—a little red cottage—which of all houses his heart yearned once more to behold. Beneath its weather-worn shingles had lived a woman—the woman he had loved. Had she, too, forgotten? Perhaps he would find children playing in that garden even as they were playing in his own, and a mother watching them from the front porch. Perhaps— But that was too awful, and he rejected it summarily.

The sun went down, and left the world colorless. As he approached the cottage his heart was thumping madly. Leaning against the fence he espied a woman. Tall and spare was she, with a black shawl covering her shoulders. She was alone, watching the waning day.

For a moment his courage failed him, and he was sore tempted to retrace his steps. No; he would see the woman, and inquire if she knew what had become of Eleanor Hope. Eleanor! The very sound of the name emboldened him, and he quickened his steps.

"Can you tell me, please, where Miss Eleanor Hope lives?"

Too late! The words had issued from his lips, and the woman had turned her face to his.

"Eleanor!"

"John Townley, I bid you welcome. Won't you come in?"

Ten years vanished as he followed her across the garden.

She paused at the threshold. "Go into the parlor, John. I have been waiting for you."

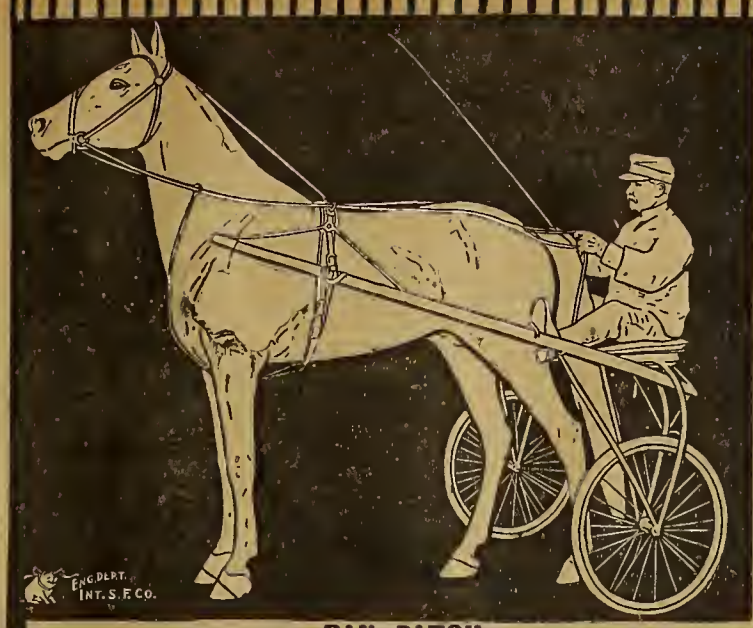
"Eleanor!"

"Waiting, John, ever since I learned the truth. Often have I wondered what had become of you. I was sure you would come back sooner or later. You look pale and tired. Rest yourself. Things have changed mightily in ten years, haven't they?"

"Yes, Eleanor. And you?" There was dire appeal in the tone of it.

The answer came slowly. "No, John, I have not. I—have—not—changed."

Outside the gray faded to blackness and coldness. Inside there was warmth and light. Warmth and light!



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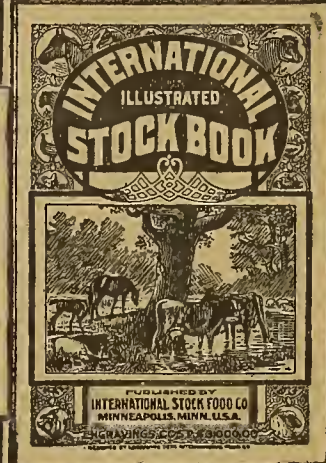

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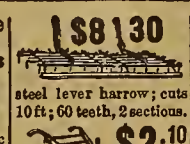
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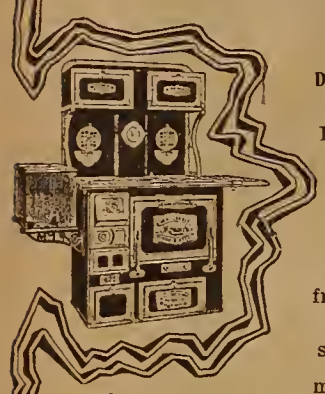

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How to Dress

A SMART LITTLE COAT

Little children are always attractive in long coats that completely cover the frocks. This very stylish model suits cloth, silk, moire velours, satin and all cloak-materials, but is illustrated in royal-blue velvet with trimming of Irish crochet and ermine.

A STYLISH HOME GOWN

Light-colored canvas is much worn for afternoon gowns, and is as graceful and elegant in its lines and folds as it is fashionable. The stylish model illustrated is made of the material in pastel réséda, and is stitched with black and trimmed with panne in a deeper shade than the wool, with collar and cuffs of écru lace and drop ornaments that combine réséda with black. The waist is especially noteworthy, as it includes the princesse closing and slot-seams, and can be made with the capes and stole, or left plain, as preferred.

A SMART LITTLE COAT

AFTERNOON GOWN

Simple tucked shirt-waists worn with skirts of black or some neutral color make satisfactory and desirable costumes for home afternoon wear, and are much in vogue. This novel waist includes the wide box-plait that is held in place by the ornamental buttons, and a novel and becoming stock. As illustrated it is of peau de cygne in pastel rose-color, with collar and cuffs dotted with black, and is worn with a skirt of black canvas, but all waist-materials—cotton, linen, wool and silk—are appropriate.

RECEPTION GOWN

Simple blouse waists made with skirts to match make most satisfactory afternoon gowns, and are much in vogue. The stylish one illustrated is of wool crêpe, in soft tan-color with yoke and trimmings of plaid louisine silk, but many combinations can be made. The yoke-plastron is a novelty, and gives the desired long-shouldered effect. The closing is effected at the left front through the yoke and under the plastron, large button studs of carved gilt being used on collar and yoke and serving to hold the cuffs. The skirt is cut in five gores, with a graduated circular flounce seamed to the lower edge.

VELVET AND ERMINE

Blouse coats with tunics, or attached skirts, are essentially smart, and are seen in the handsomest winter costumes. This excellent model is illustrated in velvet with ermine trimming and collar and revers of crochet, and is worn with a skirt to match; but the design is appropriate for cloth of all sorts and the separate wrap as well as the jacket suit. The coat includes three capes that add greatly to its style, but can be made plain, if preferred, and the fronts can be lapped and closed in place of being rolled back to form revers. The skirt is cut in seven gores that are lengthened by the circular flounce.

MIDWINTER MILLINERY

The distinctive shape this season is the turban. It is of beaver, velvet or fur, and trimmed with rosette, aigrette or ostrich-plume. Kid, dyed in pale colors, is a novelty in hat-materials, and astrakhan tulle deserves to be reckoned among the season's productions. The latter is an admirable substitute for Persian lamb, having the advantage of lightness in weight. Fur hats have a charm and elegance all their own, and Siberian squirrel is a prominent feature of the season's modes. Light hats are worn with dark gowns, and black hats are extremely modish with light tan or gray. There is invariably some trimming that droops over the hair. Fruits and flowers retain their popularity as trimmings, and of the latter violets are especially favored. Acorns and grapes are also popular decorations.—The Delineator.

FASHION HINTS FOR WINTER

The shirt-waist costume is essential to a perfectly appointed wardrobe, and velveteen of good quality is desirable for its development.

Cape collars distinguish nearly all the new coats and jackets.

Velvet has been the material "par excellence" of the season, and it will undoubtedly continue in favor.

The cloth costume will be a prominent feature of the spring fashions, and white mohair with a silky surface is promised an unprecedented reign.

Crêpe de chine is the most artistic material for evening gowns or those intended for semi-formal occasions; but many of the evening dresses are made of chiffon and lace, and show narrow borders of fur, chinchilla or mink-tail.

Muffs have grown to a prodigious size.

Lace is becoming more and more a feature of fashionable dress, and leather has an important position in trimmings this season.—The Delineator.

A fad of the day is for waists with oval or round buttons larger than a five-cent piece put on each side of the front openings. These buttons are often covered with bright plaid silk, and are usually of silk. They are merely ornaments, and never are put to use. They are sewed opposite each other, on the sides of the box-plait, which closes the fronts of the waists.—New Orleans Picayune.

AFTERNOON GOWN

Any of these separate patterns sent from this office for ten cents.

Child's Coat.—No. 4323. In sizes for children 1, 2, 4 and 6 years of age.

Afternoon Gown.—Blouse Waist No. 4325. In sizes 32, 34, 36, 38, 40 and 42 inches bust measures. Seven-gored Skirt No. 4221. In sizes 22, 24, 26, 28 and 30 inches waist measures.

Home Gown.—Waist No. 4330. In sizes 32, 34, 36, 38 and 40 inches bust measures. Five-gored Skirt No. 4182. In sizes 22, 24, 26, 28 and 30 inches waist measures.

Velvet and Ermine Suit.—Blouse Jacket No. 4333. In sizes 32, 34, 36, 38 and 40 inches bust measures. Seven-gored Skirt No. 4115. In sizes 22, 24, 26, 28, 30 and 32 inches waist measures.

Reception Gown.—Blouse Waist No. 4332. In sizes 32, 34, 36, 38 and 40 inches bust measures. Five-gored Skirt No. 4075. In sizes 22, 24, 26, 28 and 30 inches waist measures.

RECEPTION GOWN

VELVET AND ERMINE

HOME GOWN

IF YOU WANT CASH

For Your Farm, Home or Business

I CAN GET IT

No matter where your property is located or what it is worth

If I did not have the ability and facilities to sell your property, I certainly could not afford to pay for this advertisement. This "ad" (like all of my other "ads") is practically sure to place on my list a number of new properties, and I am just as sure to sell these properties, and make enough money in commissions to pay for the cost of the "ad" and make a good profit besides. That is why I have the largest real estate business in the world to-day.

Why not put your property among the number that will be sold as a result of this "ad"?

I will not only be able to sell it—some time—but will be able to sell it quickly. I am a specialist in quick sales. I have the most complete and up-to-date equipment in the world. I have branch offices throughout the country and a field force of 2500 men to find buyers.

I do not handle any of the side lines usually carried by the ordinary real estate agent. I do not make any money through renting, conveyancing, mortgages, insurance, etc. I MUST SELL real estate—and lots of it—or go out of business. I can assure you I am not going out of business. On the contrary, I expect to find, at the close of the year 1903, that I have sold twice as many properties as I did in 1902, but it will first be necessary for me to "list" more properties. I want to list YOURS and SELL it. It doesn't matter whether you have a farm, a home without any land, or a business; it doesn't matter what it is worth or where it is located. If you will fill out the blank letter of inquiry below and mail it to me to-day, I will tell you how and why I can quickly convert your property into cash, and will give you my complete plan (free) and terms for handling it. The information I will give you will be of great value to you even if you should decide not to sell. You had better write to-day before you forget it.

If you want to buy any kind of a Farm, Home or Business, in any part of the country, tell me your requirements. I will guarantee to fill them promptly and satisfactorily.

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Please send, without cost to me, a plan for finding a cash buyer for my property, which consists of.....
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in the town or city of.....
County of.....*and State of*.....
and which I desire to sell for $.....
The plan is to be based upon the following brief description of the property:.....
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Name .....
Address.....

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1404 North American Bldg., Phila., Pa.
With a view of buying, I desire information about properties which correspond approximately with the following specifications:
Kind of property.....
Size.....*State*.....
City or County or part of State preferred.....
The price must be between $.....*and $*.....
I will pay.....*down, and the balance*.....
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Name .....
Address.....

VERY FEW PEOPLE

Are Free From Some Form of Indigestion

Very few people are free from some form of indigestion, but scarcely two will have the same symptoms.

Some suffer most directly after eating, bloating from gas in stomach and bowels, others have heartburn or sour risings, still others have palpitation of heart, headaches, sleeplessness, pains in chest and under shoulder-blades, some have extreme nervousness, as in nervous dyspepsia.

But whatever the symptoms may be, the cause in all cases of indigestion is the same; that is, the stomach for some reason fails to properly and promptly digest what is eaten.

This is the whole story of stomach troubles in a nutshell. The stomach must have rest and assistance, and Stuart's Dyspepsia Tablets give it both by supplying those natural digestives which every weak stomach lacks, owing to the failure of the peptic glands in the stomach to secrete sufficient acid and pepsin to thoroughly digest and assimilate the food eaten.

One grain of the active principle in Stuart's Dyspepsia Tablets will digest 3,000 grains of meat, eggs or other wholesome food, and this claim has been proven by actual experiment, which any one can perform for himself in the following manner: Cut a hard-boiled egg into very small pieces—as it would be if masticated—place the egg and two or three of the tablets in a bottle or jar containing warm water heated to 98 degrees (the temperature of the body), and keep it at this temperature for three and one half hours, at the end of which time the egg will be as completely digested as it would have been in the healthy stomach of a hungry boy.

The point of this experiment is, that what Stuart's Dyspepsia Tablets will do to the egg in the bottle it will do to the egg or meat in the stomach, and nothing else will rest and invigorate the stomach so safely and effectually. Even a little child can take Stuart's Tablets with safety and benefit if its digestion is weak, and the thousands of cures accomplished by their regular daily use are easily explained when it is understood that they are composed of vegetable essences, aseptic, pepsin, diastase and Golden Seal, which mingle with the food and digest it thoroughly, giving the overworked stomach a chance to recuperate.

Dieting never cures dyspepsia; neither do pills and cathartic medicines, which simply irritate and inflame the intestines.

When enough food is eaten and promptly digested there will be no constipation, nor in fact will there be disease of any kind, because good digestion means good health in every organ.

The merit and success of Stuart's Dyspepsia Tablets are world-wide, and they are sold at the moderate price of 50 cents for full-sized package in every drug-store in the United States and Canada, as well as in Europe.

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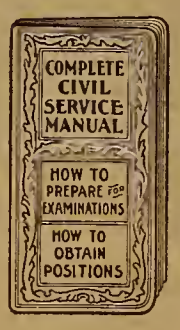
Why not get a Position in the National, State, County or City Government?



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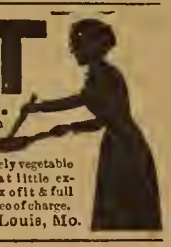
How to reduce it. Mr. Hugo Horn, 344 E. 65th St., New York City, writes: "It reduced my weight 40 lbs. 3 years ago, & I have not gained an ounce since." Purely vegetable & harmless as water. Any one can make it at home at little expense. No starving. No sickness. We will mail a box of it & full particulars in a plain sealed package to any address free of charge. HALL CHEMICAL CO. Dept B. St. Louis, Mo.



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I will send FREE trial bottle of my Face Bleach to any lady sending name and address. Mme. A. RUPPERT, 6 E. 14th St., New York City

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RUPTURE SURE CURE at home, book free. Capt. W. A. Collings, Box 45, Smithville, N. Y.

Angels Whisper Beautiful, large, colored picture; sells quickly at 25c.; sample 12c.; 9 for $1.00. J. Lee, Omaha Bldg., Chicago.

The Young People

CAPITAL ADVICE

BY ELTON SHARPE

Let him who wishes to XL,
  Or who aspires to B most Y's,
Remember this: A Y's man O's
  Much of his wisdom to his I's.

And he must not his ears XQ's;
  But ears must hear, and I's must C,
And he must all his senses U's
  Who hopes a Y's man e'er to B.

He who is rich may rest in E's,
  But all things earthly must DK;
Wisdom succumbs not to DZ's,
  Secure it, and B rich for A.

SOME GAMES OF ACTION

Do As I Do.—This is sometimes called the German exercise. The company are seated in a row or semicircle, and one is selected as leader. The captain stands in front, and calls, "Attention! Do as I do." Every eye must be riveted upon the leader, whose actions, whether of eye, hand or whole body, must be exactly imitated. The leader then does something odd or unexpected, such as sneezing, wagging the head, gaping, beating time, or whatever suggests itself. The rest do the same simultaneously, and the effect is very comical if the leader is ingenious and the players good mimics. After a time the leader says, "Present arms!" Each then stretches out the right arm toward the captain. The next command is "Fire!" The captain, at this word, gives the nearest player a push, sufficient to upset without hurting, and each player pushes the next, until all are thrown down sideways upon the grass or carpet.

Pigeon Flies.—Each one of the company places a finger upon a table, or upon the lap of the leader of the game, and each must raise his finger as soon as the leader says "Pigeon flies" (or he may name any other bird). If he names any object that is not a bird, and any one of the players raises a finger by mistake, the latter pays a forfeit, for he ought not to raise it except after the name of some bird or winged insect.

Stir the Batter.—If seven players are obtainable, place six chairs around the room, and remove the rest. All are seated, except one whom we will call Jessie, who stands in the center with a stick in her hand, and affects to stir the carpet, saying, "Stir the batter; keep it stirred." After stirring for a few moments, all of a sudden she taps the floor three times, and throws down the stick. At this signal the six players who are seated have to jump up and exchange chairs. While doing this it is Jessie's cue to reach one of the chairs before it is reoccupied. If she succeeds, the one left without a seat has to "stir the batter;" failing, she has to do so once more, in the hope of better fortune next time.

I Had a Little Basket.—This game is played by the very youngest. One of the circle begins, turning to his neighbor with the words, "I had a little basket." The party addressed asks, "What was in it?" To which the first speaker replies with the name of anything beginning with A and consisting of one word only, as "apples." The second in turn then addresses the third with "I had a little basket," and upon being asked "What was in it?" replies "bullets," or "bears," or anything else the first letter of which is B. And thus the game goes on until the alphabet has been exhausted. Much fun is caused by the oddity of the articles said to have been in the basket, as crocodiles, dumplings, elephants, pigs, etc.

Frank H. Sweet.

THE CLEVER KITTENS

"My cat speaks French," said little Jeanne,
  "As plainly as can be;
Says 's'il vous plait' (that's 'if you please'),
  And thanks me with 'merci!'
I know, because I understand
  Each word she says to me."

"That's thrue for you!" sweet Nora said,
  With merry look demure,
"Me own shpakes Oirish! Whin I set
  A saucer on the flure,
An' ask her would she like some milk,
  The darlint tells me 'Sure!' "

"And mine speaks German," with a nod,
  Said Lisa from the Rhine;
"Says 'bitte' when she wants to drink,
  And 'ja,' of course, and 'nein;'
I wouldn't have a cat that spoke
  A different tongue from mine!"

I met those kittens afterward,
  No matter where nor how;
I listened well to what they said—
  Would you believe it, now?
They spoke in English, every one,
  And all they said was "Miaow!"

THE WORM THAT WENT TO SLEEP

One day when Manette was visiting her grandpa she found a great worm lying in the path. It was as long as her grandpa's forefinger, and was as big round as his thumb. It was a light green color, with queer, bright-colored knobs or bumps all over it. It was so ugly that Manette was afraid of it, but her grandpa lifted it between two sticks, and put it into a pasteboard box with a piece of glass for a cover. He then carried it into an upper room which was not much used. His little granddaughter wondered, and asked questions.

"The worm is sleepy, and so I have made it a bed, and by and by it will make itself a blanket," grandpa said.

"Oh, grandpa! Can it, really? How can a worm make a blanket?"

"It weaves it, dearie, something as a spider weaves its web. It will take a good while. You must watch and be patient."

Manette went every day to look at the worm, and after what seemed to her a long time, one day she saw some fine threads from the worm to the glass. Every day there were more threads, until at last Manette could not see the worm at all.

"He has covered himself all up, grandpa. Is the blanket finished now?" she asked.

"Yes, and now the worm will sleep all winter, and when he wakes in the spring I don't believe you will recognize him."

When Manette's visit was over, her grandpa gave her the box, carefully done up in paper, and told her to lift the cover off when she reached home. So she did, and found the worm, snugly wrapped up in its odd bedclothes, fastened tight to the glass. Her mama leaned the glass against the wall above the mantel in the library, and there it stayed all winter; and Manette often forgot all about it.

But one day in the early spring a very wonderful thing happened. Manette was playing in the yard, when her mama called her. She ran into the library, and there on the edge of the mantel was the most beautiful, gorgeous, golden-yellow butterfly.

"Oh, mama!" she whispered, "did it fly through the window, do you think?"

"No, dear; it crept out of its winter blanket."

And then her mama showed her the cocoon, as she called the blanket which the worm had made. There was a hole at one end, and out of that the ugly green worm, now changed into a fairy-like insect, had crept, to spend its second summer floating in the air and sipping sweets from flowers.

"It's just as grandpa told me," Manette said. "I never would have known it."—Child Garden.

THE TOYS BOYS USED TO MAKE

"We hear a good deal these days about the lost arts," laments a writer in the Detroit "Free Press." "I wonder if the world realizes that some of the most precious arts of childhood are in danger of becoming extinct. How many boys today can make a kite properly hung and with a tail sufficient to balance it? How many boys can make a bow with the ends nicely bent and worked down with a bit of broken glass?

"I interviewed my young nephew the other day, and was thunderstruck to discover that he knew nothing about it. Could he make a water-wheel, a windmill, an elder pop-gun, a jack-o'-lantern, a buzz-wheel, an air-gun from a goose-quill with a sliced potato for ammunition, a willow whistle, a squirt-gun? No, he knew nothing about them.

" 'But surely,' I said, almost pathetically, 'you can make a corn-stalk fiddle.'

" 'Do you mean a violin, uncle?'

"Then I gave it up. I don't believe the youth of to-day know enough to stick feathers in a corn-cob and throw it into the air. I am going to write a book some day upon the arts of childhood, to save them from utter annihilation."

THE RABBIT A COWARD

Here is a little talk between a boy who is a great hunter for his age and a woman of his acquaintance, which shows that cowardice sometimes depends on the way things are looked at:

"A rabbit," said the young hunter, "is the most awful coward that there is in the world. My, how he does run from a hunter!"

"So you think that the rabbit is a coward."

"Yes, of course."

"Well, let us 'suppose a little.' Suppose you were about six or eight inches tall."

"Well."

"And had good, strong, swift legs."

"Yes."

"And didn't have any gun, and a great big fellow came after you who did have one. What would you do?"

"What should I do? I should streak it like lightning."

"I think you would, and I think, too, that you would have your own ideas as to who was the coward."—New York Recorder.

The Family Physician

By ROBERT B. HOUSE, M.D.

Hiccough is often arrested by red-pepper tea taken as hot as it can be borne.

Saturate blood-stains in kerosene, let stand for a time, and afterward wash out in warm water.

In cases of disordered stomach, when it will retain nothing, the thirst can generally be quenched by the giving of an enema consisting of eight ounces of lukewarm water.

A law has become operative in France requiring that a child must be vaccinated during its first year, revaccinated at the age of eleven, and again when it reaches twenty-one.

"Is there any profit in selling postage-stamps?" inquired the man in search of information.

"Not directly," replied the druggist, "but it gets people into the habit of going to the drug-store, and after that it doesn't take long to make chronic invalids of them."—Puck.

"I see Boston people eat pie in the morning, and New-Yorkers have it at night. Which do you think the better way, doctor?"

"Well, I should say the New York style. The longer a man puts off eating pie, the better it is for him."—Yonkers Statesman.

There is a general idea that fruit acids are contraindicated in rheumatism, yet Desplats is reporting cures from lemon-juice after failure with salicylates. Starting with two lemons, the number is increased until marked improvement is seen, the dose being kept at this point.

The pure, fresh juice of raw cranberries given freely, either undiluted or with an equal part of water, is an excellent means of relieving the thirst in fever, and moreover is markedly antipyretic. In the thirst and vomiting peculiar to cholera it is even more effective. In fifty cases in which ice and narcotics failed to make the slightest impression, cranberry-juice in small but repeated doses rapidly checked both vomiting and nausea.—Goriansky.

HOW TO SLEEP SOUNDLY

The "sure cures" for insomnia are almost innumerable. One of the latest is that of a German, Professor Fischer ("Doctor's Magazine"), who claims that it will not only bring about profound and refreshing sleep, but also increased mental strength. The discovery consists essentially in putting the pillow or pillows under the feet instead of the head. The advantages claimed for the innovation are that the venous circulation is favored, and the heart needs to work less during sleep, hence the tired feeling on waking is prevented. The Professor claims to be in receipt of a great many communications from ladies all over the German Empire who are profuse in their praises of his epochal discovery

The Family Lawyer

By JUDGE WM. M. ROCKEL

Legal inquiries of general interest from our regular subscribers will be answered in this department free of charge. Querists desiring an immediate answer by mail should remit one dollar, addressed "Law Department," this office.

RIGHTS OF WIFE

F. F. R., Ohio, puts this question: "If a wife should leave her husband on account of ill treatment, can he take a share of her property which she inherited from her parents and brothers? Could she not hold it to maintain her minor children, he being proved incompetent?"

The wife has a right to all her own property, to do with it as she chooses, and she could file a petition and compel her husband to provide for his minor children; or if he failed or refused to maintain them, he could be arrested under the laws of the state of Ohio.

VALID MARRIAGE

T. S., Missouri, anxiously asks: "A man and woman, both living in Kansas, were married in Kansas, but the man living near the state-line had been getting his mail at a near town in Colorado. So when he procured the license, he gave that as his address, and the certificate reads as follows: 'Mr. A., of ————, Colorado, and Mrs. B., of Kansas.' We are so afraid the marriage is not legal. What could he done if it is not? Also, is one witness sufficient at a marriage?"

If a regular ceremony was performed, and the parties have been living together as man and wife, you need have no fears as to the validity of the marriage nor liability to criminal prosecution.

SETTLEMENT OF ESTATES

J. L. H., Ohio, wants to know: "If in the settlement of an estate by an executor or administrator, when the assets of the estate are sufficient to pay the individual indebtedness, but not sufficient to pay obligations incurred by going security on notes for other parties, will the assets of the estate have to be applied to the individual indebtedness in preference to the obligations incurred by going security for others?"

Whatever the liability may be of the deceased person on the note, such liability must be settled for by the administrator. Individual indebtedness has no preference over obligation incurred by going security for others. It might be the administrator's duty to see that the principal on the note was first exhausted before paying anything from the estate; but if the obligation is joint and several, the administrator might pay the note and then sue the other parties thereon.

INHERITANCE

E. L., Pennsylvania, puts this inquiry: "A woman married, and had three children by one husband. This husband died. The widow married a second husband, and had two children by him. Husband No. 2 bought a farm; he died, and the farm became the property of the widow. Before the widow died she willed each of her first children five dollars. The remainder of her property she willed to the two children she had by the second husband. Those two children were never married, and died leaving no heirs. They made no will. They left several thousand dollars of personal property and a farm. Now the question to be decided is, who are the lawful heirs—the children of the first husband, or the relatives of the second husband, of which the closest living are children of the second husband's sister?"

It is always difficult to accurately answer a question such as the above, for very often the inquirer leaves out an important fact. I presume that the widow had the title to the property which she must have acquired from her second husband either by will or purchase, and I would answer that the children of the first husband—that is, the half brothers or sisters of the children of the second husband—would be the lawful heirs.

ROAD-RIGHT ACQUIRED BY USER

W. R., Ohio, says: "About a century ago the place where I live was surveyed off into town lots, and a plat made of it. The plat still survives, and deeds and taxes are made according to the plat. At that time the public road was along the river-bank. About twenty-five years ago the road was moved back from the river bank, so that a man who owned a lot that faced the road before it was moved had to go through his neighbor's field to get to the public road. He has used the same lane that his neighbor has used all this time, and no objections have ever been made. Can said lane be closed and this man be made to buy an outlet to the public road? Will not more than twenty-one years of uninterrupted use hold the lane?"

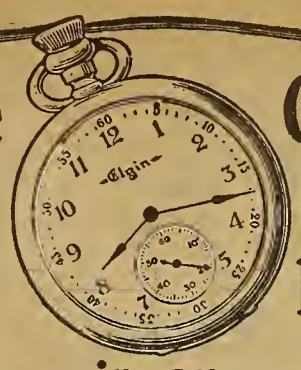
The uninterrupted using of the road for more than twenty-one years would give the owner of the land on the river-bank a right to the continued use of such road. It is not the business of the county to provide an outlet, unless a petition was made for that purpose, and no doubt a petition might now be filed for the establishment of a road, which would more properly come within the jurisdiction of the township trustees.

EMANCIPATING CHILD

N. P., Ohio, asks this very interesting question: "If a mother permits her son to do business for himself and do his own collecting from the time he is thirteen until he is past sixteen years old, then gets offended at him and tells him to leave home, and he obeys, can she go to the man he works for and collect his wages, or will the law not give him the liberty of collecting his own earnings? He has been earning a man's wages for over two years, paying her rent for her and helping support her family."

While a parent is entitled to the services of his minor child, yet the law recognizes the right of such parent to relinquish his right to such services. This is called manumission, or emancipation, of the child. Such release may be made in writing, or may be a conclusion drawn from the actions of the parent. This fact of emancipation, or manumission, may result from a number of facts. It may even occur when the child is living with the parent. It is not necessary that there be a difficulty between them. The most difficult question that presents itself is whether or not, after the parent has made the relinquishment, it is still within the power of the parent during the minority of the child to revoke such a relinquishment. Upon this question the courts are not in accord, Missouri and Maryland having held that the parent could make such a revocation, and New Hampshire and California to the contrary. In this conflict of authority it would seem that the better reasoning would be, under the circumstances existing as put in the question, that the mother had relinquished her right and that she ought not to be allowed to revoke it, and the son should be permitted to collect his wages.

Poor time has its ending



Good time has its beginning

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If you are a suffering woman we would say to you that Wine of Cardui seldom fails to completely cure any case of female ills. We say emphatically, it never fails to benefit. Every day hundreds of sufferers are writing to our Ladies' Advisory Department. The letters are opened by persons competent to give advice. Mrs. Jones was cured by following the advice which was freely given her by the Ladies' Advisory Department. Miss Owens was cured without advice by just buying a $1.00 bottle of Wine of Cardui from her druggist and taking this great medicine in the privacy of her home. No doctor's examination, treatment or advice is necessary. You have read what these two cured women have written. Is this not enough to lead you to determine to be rid of suffering?

August 13, 1900, Mrs. W. H. Jones, of Cameron, Mo., writes:

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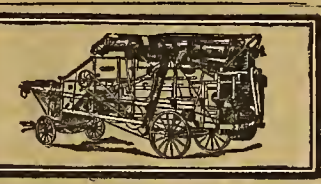

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Wit and Humor

NO WONDER THE CHILD OBJECTED

A NEW YORK professor had a wife and family, but professorlike, his thoughts were mostly with his books and his dynamos. One evening his wife returned from late-afternoon visits to find the house strangely quiet. Nowhere were the children to be seen. She demanded of the man of books what he had done with the youngsters. The professor explained that they had become rather noisy, and so, even without calling the maid, he had stuffed them into bed.

"I hope they haven't given you much trouble," Mrs. Professor said.

"Oh, no," said the professor. "With the exception of the one in the cot over there, perhaps. He objected a good deal to my undressing him and putting him to bed."

Mrs. Professor went to inspect the cot.

"Why," she cried, "that's little Freddie Jones, from next door."—The World's Events.

WOULDN'T JUMP THE JOB

"I spoke from the same platform last autumn with a funny fellow who told the best story I heard in the campaign," Representative Foster, of Vermont, was telling a group in one of the cozy corners of the House cloak-rooms. "It was used to illustrate the prevalence of good times for workingmen.

"A man had landed in San Francisco, after extensive travels, mighty close to being 'busted.' He had decided to work rather than starve, and applied to a freight-office of one of the transcontinental lines for a place as brakeman. The road had a job waiting for him, and he asked, 'How much do you pay a month?'

"'We don't pay by the month.'

"'How much a week?'

"'Don't pay by the week. We pay brakemen three cents a mile.'

"Our 'busted' friend went to work on the first freight-train east from 'Frisco. As the locomotive pulled up into the mountains it moved slower and slower, and the new brakeman, counting the miles, began to be greatly dissatisfied with his job. But before reaching the summit the train broke in two. At the rate of fifty miles an hour the rear end went backing down the mountain-side.

"'Don't jump!' shouted the conductor to the new brakeman. 'Stick to it, and don't jump!'

"'Jump?' shouted back the brakeman. 'Well, I guess I won't jump. What kind of a fool do you take me for, when I am making a dollar and a half an hour?'"—Washington Post.

THE MODERN HOTEL

Clerk—"Sorry, sir, but the only room I can give you is on the twenty-fourth floor."

Guest—"All right. If any one asks for me, tell him I'm out of town."—New York Press.

KNEW THE ROPES

"Have you ever had any experience in handling high-grade pottery?" the importer asked an applicant for a job.

"No, sir," replied the applicant; "but I can do the work all right."

"Suppose," said the merchant, "you should accidentally break a vase, what would you do?"

"I would put it together carefully," replied the job-seeker, "and set it where a wealthy customer would be sure to knock it to pieces again."

"Consider yourself engaged," said the merchant. "And now, tell me where you got on to that trick of the trade."

"A few short years ago," answered the other, "I was one of the 'wealthy customer' class myself."—Chicago News.

STILL POORER

Inquiring Friend—"Were you always as poor as you are now?"
Artist—"Oh, no. I used to be a poet."

BOILING IT DOWN

An amusing story is told of the editor of a go-ahead London evening newspaper who in the eternal rushing to press to get ahead of the opposition was constantly impressing upon his reporters the necessity for condensing all news.

A terrific boiler-explosion had taken place on board a big ship lying at Portsmouth.

"Get down there as hard as you can," he said to one of his men. "If you catch the eleven-forty from London Bridge you'll be there soon after two, and can just wire us something for the fifth edition; but boil it down."

And the reporter went. Soon after three o'clock that afternoon they got a wire from him:

"Terrific explosion. Man-o'-war. Boiler empty. Engineer full. Funeral to-morrow."—London Tit-Bits.

NO TROUBLE TO HELP SEARCH

A woman stopped at a cloth-counter in one of the large department-stores recently, and asked to be shown some dress-patterns suitable for early autumn wear. The salesman began on the lowest row of shelved compartments, and pulled out and opened box after box until the counter on either side of him was piled as high as his head with goods. Three times he climbed a ladder to the upper rows and staggered down under a weight of boxes of patterns until, when the woman took a survey of the shelves, but two patterns remained unopened. Then she said, very sweetly, "I don't think I'll buy any to-day. I'm sorry to have troubled you, but you see I only came in to look for a friend."

"No trouble whatever, madam," he replied, politely. "Indeed, if you think your friend is in either of the remaining two boxes, I don't mind opening them, too."—Philadelphia Times.

WHAT HE WAS DOING

Mother—"You naughty boy! You've been fighting."

Little son—"No, mother."

Mother—"How did your clothes get torn and your face get scratched?"

Little son—"I was trying to keep a naughty boy from hurting a good little boy."

Mother—"That was noble. Who was the good little boy?"

Little son—"Me."—Pittsburg Bulletin.

HE KNEW

According to Representative Kyle, the following episode happened in Pickaway County, Ohio:

There is in the county a certain cross-roads, where a patient teacher struggles daily with the development of the young idea. One morning she was giving the school a lesson in geography.

"What is a cataract?" she asked.

There was absolute silence in response, and she explained the meaning of the word.

"What is a cape?"

This was better. One of the children knew it was a point of land jutting out into the water.

"What is a strait?"

Over in the corner a hand went up. "I know, teacher," said a small boy.

"Well, what is it?"

"It beats three of a kind," was the triumphant answer.—Washington Post.

DISCONNECTED

"Say, Mame," said the "hello" girl during a lull in the calls, to her intimate friend, who occupied the next chair, "is it true that you have broken off your engagement?"

"Sure thing," answered Mame, as she chewed her gum with renewed vigor.

"Oh, Mame, did you, really?"

"Well, I guess!"

"Oh, Mame, what was the matter?"

"He heard about my going down to the river with a strange young man."

"Oh, Mame, did he, really?"

"Yep. Then he had the nerve to call me up over the 'phone and read the riot act to me! Said if I was going to carry on like that he didn't want me to be wearing his ring."

"Oh, Mame, what did you say?"

"Ring off!"—New York World.

ABSURD RIVALRY

An English clergyman, writing about woman's dress, says that ladies of a certain class seem to vie with each other which shall approach nearest in their dress to the garments of a man. He points his comment with a satirical story of another absurd rivalry.

Two brothers went to the same school. They were absent about a fortnight, and then one returned alone.

"Where is your brother Thomas?" asked the master.

GIVE AND TAKE

He—"I think husband and wife should give and take."

She—"I quite agree with you, dear. The husband should give, and the wife take all she can get."—Moonshine.

"He's laid up with a sprained arm. We were trying to see which could lean out of the window farthest, and Tommy won."—Youth's Companion.

"Hell is paved with big pretensions."

"He laughs best whose laugh lasts."

"A lie in time saves nine."—The Cynic's Calendar.

I don't make all the lamp chimneys; no trouble with mine.

MACBETH.

My name on every one.

If you'll send your address, I'll send you the Index to Lamps and their Chimneys, to tell you what number to get for your lamp.

MACBETH, Pittsburgh.

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In order to introduce their Low Metal Wheels with Wide Tires, the Empire Manufacturing Company, Quincy, Ill., have placed upon the market a Farmer's Handy Wagon that is only 25 inches high, fitted with 24 and 30 inch wheels with 4-inch tire, and sold for only $21.95.

This wagon is made of the best material throughout, and really costs but a trifle more than a set of new wheels, and fully guaranteed for one year. Catalogue giving a full description will be mailed upon application by the Empire Manufacturing Co., Quincy, Ill., who also will furnish metal wheels at low prices made any size and width of tire to fit any axle.

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make best feed from ear corn and all other grains. Many sizes for horse or other power. Don't buy a grinder until you get a free copy of our New Catalog 50.

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Most complete line of Power Mills and Geared Mills with Horse Power on the market. Grinds corn and cob and all small grain and grinds fine. With and without power attachment for running shellers, feed cutters, wood saws, etc. Fully guaranteed and sold on 10 Days' Trial in competition with any other mill. Full line of Horse Powers. Our Prices are low. It pays to get the best mill right on the start. Write at once for catalogue No. 11 to the

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SEED BOOK FREE

I have selected 142 kinds of seeds to send out free for trial, as follows: Beets, 5 Choice kinds; Cabbage, 8 of the grandest varieties; Celery, 5 Nice kinds; Lettuce, 10 Splendid sorts; Onions, 7 Selected varieties; Tomatoes, 7 Grand new kinds, and 100 varieties of Gorgeous Flower Seeds; making in all 142 sorts, which will produce bushels of Choice Vegetables and immense quantities of Lovely Flowers, all for 14c. for postage.

My new Catalogue which is full of Bargains, New Offers and 10 lithographed pages of reproductions, FREE with every order or application. Write to-day.

F. B. MILLS, Seedsman, Box 25, Rose Hill, N. Y.

Warranted the Most Practical Machine Made

Screw, Cable & Hand Power STUMP PULLERS

3 Styles 9 Sizes, $25 to $150

HANDY FARM WAGONS

TILE DITCHER

Cuts 100 rods per day.

BEST CORN HARVESTER MADE. Cats. Free

H. L. Bennett & Co.

WESTERVILLE, O.

Miscellany

No wind serves him who addresses his voyage to no certain port.—Montaigne.

The space between a man's ideal and the man himself is his opportunity.—Margaret Deland.

WATERPROOFING BOOTS

I have for the last five years used successfully a dressing for leather boots and shoes, composed of oil and India rubber, which keeps out moisture and is not injurious to the leather, leaving it soft and pliable. To prepare this dressing, heat in an iron vessel either fish-oil or castor-oil, or even tallow, to about two hundred and fifty degrees Fahrenheit, then add, cut into small pieces, vulcanized or raw India rubber about one fifth of the weight of the oil, gradually stirring the same with a wooden spatula until the rubber is completely dissolved in the oil; lastly, to give it color, add a small amount of printers' ink. Pour into a suitable vessel, and let cool. One or two applications of this is sufficient to thoroughly waterproof a pair of boots or shoes for a season. Boots or shoes thus dressed will take common shoe-blacking with the greatest facility.—C. F. Miller, in the Scientific American.

CATALOGUES RECEIVED

W. K. Nelson, Augusta, Ga. Circular of field-grown roses.

Oliver P. Scott, Laporte, Ind. Illustrated catalogue of the Scott incubators and brooders.

E. C. Stearns & Co., Syracuse, N. Y. Descriptive catalogue of the Stearns green-bone cutter.

G. L. Taber, Glen Saint Mary, Fla. Illustrated nursery catalogue. Hardy citrus fruits a specialty.

New Holland Machine Works, New Holland, Pa. Descriptive catalogue of corn-and-cob feed-mills.

The F. E. Weir Company, Ligonier, Ind. Descriptive catalogue of the Weir incubators and brooders.

F. W. Mann Co., Milford, Mass. An illustrated booklet about Mann's green-bone and vegetable cutters.

The Stover Manufacturing Company, Freeport, Ill. Illustrated catalogue of the Ideal line of grinding-mills.

The Toledo Plow Company, Toledo, Ohio. Descriptive catalogues of the Burch plows and cultivators.

The Barnes Manufacturing Company, Mansfield, Ohio. Illustrated catalogue of hand and windmill pumps.

Iowa Incubator Company, Des Moines, Iowa. Descriptive catalogue of the round incubators and the Iowa brooders.

The Hiawatha Manufacturing Company, Hiawatha, Kan. Illustrated catalogue of incubators and brooders.

The Empire Company, Gibson City, Ill. Descriptive circular of porcelain-lined, aluminium-clay cooking-vessels.

J. F. Merry, Dubuque, Iowa. Circulars on fruit-growing, truck-farming, etc., in the South on the line of the Illinois Central Railroad.

Prairie State Incubator Company, Homer City, Pa. Illustrated catalogue of incubators, brooders, heaters, troughs, drinking-fountains, etc.

Directors of the Old South Work, Boston, Mass. Eight interesting "Old South Leaflets," relating to the history of Ohio. Price five cents each.

Geo. H. Stahl, Quincy, Ill. Illustrated descriptive catalogues of the Excelsior incubators and brooders, the "Wooden Hen" and poultry-keepers' supplies.

William S. Meyers, 12 John Street, New York City. "Coffee-Planting," a treatise with special reference to conditions of culture in Cuba and Porto Rico.

The King-Richardson Company, Springfield, Mass. Annual catalogue of the Home Correspondence School, and booklet—"Profitable Agriculture"—outlining the correspondence course in agriculture.

International Stock Food Farm, Minneapolis, Minn. Illustrated mail-card on the stallion, "Dan Patch," champion harness-horse of the world, recently purchased by this company for sixty thousand dollars.

JAS. BOSS CASE — WON'T BEND OR DENT

WATCH PROTECTION

The Jas. Boss Stiffened Gold Watch Cases are an improvement on solid gold cases. They are stronger and won't bend or dent. Made of two layers of gold, with a layer of stiffening metal between, welded together into one solid sheet. The outside layer contains more gold than can be worn off a case in 25 years, the time for which a Jas. Boss Case is guaranteed.

Jas. Boss Stiffened Gold Watch Cases

are recognized as the standard by all jewelers. They are identical with solid gold cases in appearance and size, but much lower in price. Don't accept any case said to be "just as good" as the Boss. Look for the Keystone trade-mark. Send for booklet.

The Keystone Watch Case Company, Philadelphia.

SOLID GOLD CASE — WILL BEND AND DENT

FOR YOU FREE

50 PHOTOGRAPHS, LIFE-LIKE & ELEGANT FREE

DO YOU WANT THEM

THEY WILL COST YOU NO MONEY.

This is for YOU:

Send any picture which you wish copied; it may be of yourself, your friend, or any member of your family. We make no distinction of either sex, age or the number of people forming a group. In case you have no picture handy, have a tin-type or other cheap picture taken—that will answer as well as an expensive photograph. The picture you send will be most carefully handled and returned to you in good condition with fifty handsome copies executed in elegant style on heavy photograph paper. In return therefor, we will ask you to do us a slight favor. IT WILL COST YOU NO MONEY. It will not take more than half an hour of your time, nor will it put you to either trouble or annoyance of any kind.

Write at once and forward your photo without delay.

Send all letters and pictures to

PHOTOGRAPH SUPPLY HOUSE,
P. O. Box, 35, Sta. D.,
CLERK NO. BT. New York City.

Be sure to write your full name and address on the back of the picture you send; original pictures will be returned to senders with the fifty photographs.

FOR YOU FREE

EIGHT DOLLARS AND TWENTY-FIVE CENTS BUYS OUR HIGH GRADE, HIGH ARM, GUARANTEED, 5-DRAWER, SOLID POLISHED ANTIQUE OAK, DROP HEAD CABINET SEROCO SEWING MACHINE, exactly as illustrated, complete with all accessories, instruction book, etc. $8.25

$15.20 BUYS THE HIGHEST GRADE, HIGH ARM, 5-DRAWER, DROP CABINET SEWING MACHINE MADE, COMPLETE WITH ALL ACCESSORIES, INSTRUCTION BOOK, ETC.

Other high grade sewing machines in 5-drawer, drop cabinet and other styles, $10.45, $10.95, $11.95, $12.65, $14.75, etc.

We sell nearly all the best known standard sewing machines, including the genuine SINGER, DOMESTIC, NEW HOME, WHEELER & WILSON, WHITE, STANDARD, MINNESOTA, HOWARD, BURDICK and EDGEMERE, and our low prices, etc., will simply astonish you. Every machine shipped on THREE MONTHS' FREE TRIAL, with the understanding that if it doesn't prove PERFECTLY SATISFACTORY you do NOT PAY US ONE CENT. Write for our Free Sewing Machine Catalogue, mention this paper, and we will give you the names of a number of your own neighbors to whom we have sold sewing machines, so that you can see and examine your neighbors' machines, learn how they are pleased with them and how much money we saved them. The Special Sewing Machine Catalogue will go to you by return mail, complete with large illustrations, full descriptions and most ASTONISHINGLY LOW PRICES. You will receive the most wonderful price offerings ever heard of, our liberal three months' free trial proposition and the most extraordinary sewing machine offer ever made. Address, SEARS, ROEBUCK & CO., CHICAGO.

Three Months' Free Trial.

WE CAN SURELY SAVE YOU ABOUT ONE-HALF ON ANY KIND of a MACHINE.

NOTE—Sears, Roebuck & Co.'s offer of the highest grade sewing machine made for only $15.20 is certainly astonishing.

SEEDS SEEDS

There was more money made by Farmers and Gardeners in 1902 than in any previous year in the history of the United States. 1903 will equal if not excel it.

GOOD SEED IS SCARCE—Buy Early.

Johnson & Stokes' Garden and Farm Manual for 1903 illustrates by photographs and describes some of the greatest Money Bringers ever offered. Shall we send you a copy? It is free.

SPARKS' EARLIANA TOMATO has no competition in the extra early class,—enormously productive of large, fine, smooth, solid fruit. Has made more Hard Cash for our customers than anything ever before introduced by any seedsman. Pkt., 20c.; oz., $1.00.

JOHNSON & STOKES, 217-219 Market St., Philadelphia, Pa.

245 Styles Vehicles and Harness

CUT THIS AD OUT and send to us and we will mail you Free our 1903 special vehicle and harness catalogue. It has always been the most complete book printed, and for 1903 it is more complete than ever. It is the standard from which others figure—we lead, the others follow. Top Buggies $27.90. The greatest buggy offer ever made at $41.70 Top Buggies with guaranteed rubber tires at $45.00. 45 styles to select from. Surreys with canopy and extension tops, $46.75 to $112. Phaetons, Driving Wagons, Spring Wagons, etc. 145 styles vehicles, 98 styles harness to select from.

WE GUARANTEE every vehicle for 2 years and guarantee safe delivery. We will ship you any vehicle without any money with order. Don't buy until you get our catalog and see our wonderful offers.

MARVIN SMITH CO., 55-57-59 North Jefferson Street, Chicago, Illinois.

Catarrh, Foul Breath

If You Continually K'hawk and Spit, and there is a Constant Dripping from the Nose into the Throat, if You Have Foul, Sickening Breath, that is Catarrh

Large Trial Package Free—Quickly Cures

Any person having catarrh always has a bad breath. The sense of smell and taste are nearly always totally destroyed in time, so that the person who has catarrh does not realize how loathsome their disease is. They continue their K'hawking-K'hawking and spitting aud spitting ahout promiscuously until they are shunned hy every one, and the sight of them is enough to make a well person sick.

Gauss' Catarrh Cure gives wonderful relief, especially in those chronic cases where the mucus drops down the throat and lungs, sickening the stomach, and leads to many diseases, including Consumption.

Catarrh is a deep-seated disease, and local applications, inhalations, sprays, ointments or salves will do no good. A large trial package mailed free that will convince you. Send name and address at once to C. E. Gauss, 924 Main St., Marshall, Mich.

THIS ASTONISHING MUSICAL NOVELTY is nearly equal to a **Pipe Organ** in its marvelous effects. Delicate, trilling or wavey passages of music can be produced to perfection. The **Trumpetone** is played as easily and softly as a common **Harmonica**, and by means of the many little Trumpets, "each reed having a trumpet-like attachment all by itself," it is possible to produce tones of unusual power and brilliancy as well as delicate softness, as desired. These instruments are made on an entirely new principle of the very best materials and are unexcelled for general use on any occasion either for personal playing at home or for entertainments, alone or in connection with other instruments. The most beautiful effects can be obtained in solos or duets rendered on these little musical wonders, and we can guarantee them for purity of tone and finish. They will at once be appreciated by professionals as well as by those who have never before been able to play a tune on any instrument. You can surely do so now after a very few moments' practice.

FREE. The best magazine printed today, full of the best stories, pictures, puzzles and fun is COMFORT. If you will send us 25c. for a 6 months' trial subscription to COMFORT we will send you one of these new mouth organs. Address **COMFORT, Box 965, Augusta, Maine.**

EXPOSITION FLYER

Via

"Big Four"

From

Cincinnati

To

St. Louis

Write for Rates and Folders.

Warren J. Lynch, Gen'l Pass. & Tkt. Agt. — W. P. Deppe, Asst. Gen'l P. & T. A.

CINCINNATI, OHIO.

ENTIRELY NEW

The Twentieth Century Peerless Atlas and Pictorial Gazetteer of All Lands is up-to-date. Two invaluable reference works in one and sells at one fourth usual Atlas prices. Gives Every Census from 1790 to 1900, also 1901 Crop and other statistics. Fine Map of Panama Canal.

Agents Wanted

The Peerless Atlas is guaranteed the finest seller on the market, enabling agents to double the best profits they ever made. Your success is certain. Contains 170 mammoth pages, size 14 by 11 inches. 340 Colored Maps and Magnificent Illustrations.

For extra liberal terms and tell-tale pamphlet "Story of the Workers," address

THE CROWELL PUBLISHING CO.

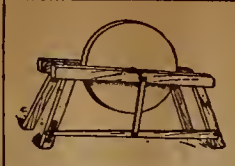
Department of Agents, Springfield, Ohio

FREE TO AGENTS complete outfit for paying business. All profits clear, as we prepay charges. Full particulars by addressing FARM AND FIRESIDE, Dept. of Agents, Springfield, Ohio

PRIZE PUZZLES

We Want to be Neighborly, and so Invite all of Our Readers to Use Our Grindstone. It Will Sharpen Your Wits, Quicken the Intellect, Afford Healthful Recreation, and Give Innocent Amusement and Entertainment.

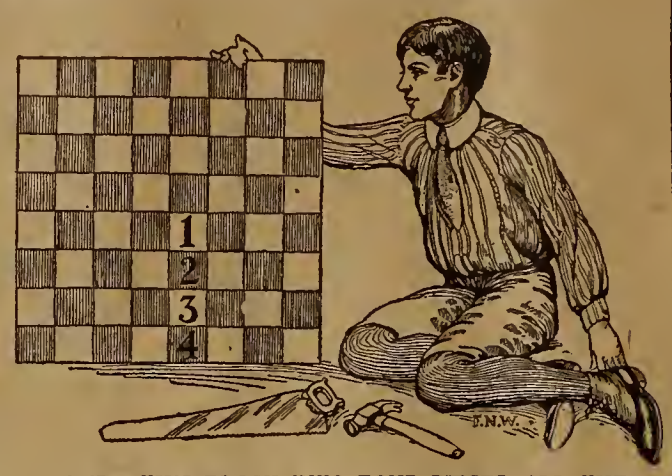
Residents of Springfield, Ohio, are not allowed to enter the contests.



CHECKER-BOARD PUZZLE

Eight Dollars Cash Offered in Four Prizes

A BOY received a checker-board which had been divided into four pieces. All of these pieces were exactly the same shape and size. They were numbered respectively 1, 2, 3 and 4. He fitted the pieces together, making the complete board with the numbers placed as seen in the illustration. This *puzzle* is to reverse the plan of the boy's working and to divide the board into four pieces, all the pieces exactly alike, each section bearing one of the numbers, 1, 2, 3 and 4. In sending your answer to the puzzle, take the accompanying drawing and outline the four pieces carefully, as you think the boy had them, using either pencil, pen or brush. Make sure that each piece takes in one of the numbers, and one only.



DIVIDE THIS BLOCK INTO FOUR PIECES, ALL THE SAME SIZE AND SHAPE, AND EACH PIECE INCLUDING A BLOCK WITH ONE OF THE NUMBERS ON IT

Two dollars in cash will be given to the person sending the first correct answer received from states east of the Mississippi River, excepting Ohio.

Two dollars in cash will be given to the person sending the first correct answer received from the state of Ohio.

Two dollars in cash will be given to the person sending the first correct answer received from states lying between the Mississippi River and the Rocky Mountains.

Two dollars in cash will be given to the person sending the first correct answer received from states west of the Rocky Mountains.

Answers must reach this office not later than February 15, 1903, and be addressed to the Puzzle Editor, FARM AND FIRESIDE, Springfield, Ohio.

OUR FEBRUARY RIDDLES

$5.00 Cash Given in Prizes

Also a Prize for Each State and Territory—Fifty-Five Prizes in All

Hosts of our readers found pleasure and entertainment in solving our January riddles, as attested by the thousands of replies received, and we are sure that the following riddles will excite equal interest. Rewards are offered to those who are most prompt in sending correct solutions. All are invited to participate in the contest.

1—If three cats can catch three rats in three minutes, how many cats can catch one hundred rats in one hundred minutes?

2—Suppose in the year 1 one cent had been deposited in bank, bearing 4 per cent interest, compounding every time interest equaled principal. State amount in year 1900.

3—If to my age your age combine,
The sum would reach to 99.
To half my age add 1½ and see
Just what half your age will be;
Now half your age to half of mine
Would make ½ more than 49.
Your age and mine now I ask.
Pray, are you equal to the task?

4—Can you read this:

0
B e D

5—The cow and the horse—what is the difference in their getting up?

Two dollars in cash will be given to the first person sending a complete list of correct answers to all of the five riddles.

One dollar in cash will be given to each of the next three persons sending correct answers to all of the five riddles.

A valuable book, "The Twentieth Century Handy Cyclopedia Britannica," will be given for the first complete list of correct answers received from each state and territory. This means a book for each of the forty-five states, one for each territory, and one for the District of Columbia, also one for Canada. The first complete and correct list from each state wins a prize, giving equal opportunity to all our readers, wherever located.

Answers must reach this office not later than February 15, 1903, and must be addressed to the Puzzle Editor, FARM AND FIRESIDE, Springfield, Ohio.

WINNERS OF PUZZLES IN JANUARY 1st ISSUE

The Automobile Puzzle

In this picture-puzzle there are forty-four well-defined parts, with others of questionable fairness. You may find the heart, drum, head and cords, veins, ears and corns, two lips, chest with back, lid, nails, side and joints, palate, two wrists, frame and ribs, face and hands, skull and blade, temple with roof and columns, palms and limbs, teeth, bridge, pupils, caps, hair, lash, arms and locks, lights, two feet, soles, windpipe, gums, crown, trunk (wagon), body and tongue.

The first prize of five dollars is awarded to Marshall Merritt, Newburgh, N. Y.

The second prize of two dollars is awarded to Addie Bassett, New Bedford, Mass.

The third, fourth and fifth prizes of one dollar each are awarded to Arthur M. Hill, State Line, Cal.; H. B. Mitchell, Athens, Ga.; Faith W. Stucker, New London, Iowa.

The "Woman's Home Companion" will be given for six months, as an extra prize, to Miss M. L. Webster, Palmyra, N. Y., for her very handsomely illustrated booklet of answers in rhyme.

The Boys' and Girls' Puzzle

In the problem of cutting the cake of cheese with six straight cuts, if we make every cut intersect every other cut within the center of the cheese, the first cut will produce 2 pieces, the second 4, the third 8, the fourth 15, the fifth 26, and the sixth 42, which is the correct answer to the puzzle.

The first prize to boys, two dollars, is awarded to Everly Walker, Matthews, Ind.

The first prize to girls, two dollars, is awarded to Elsie Maxwell, Knoxville, Ohio.

The second prize to boys, one dollar, is awarded to Ben Robertson, Republic, Mo.

The second prize to girls, one dollar, is awarded to Nadine Broden, Morganville, Kan.

The January Riddles

The answers to the five riddles are as follows:

1—The beggar was a woman.

2—Two and a half.

3—Collars, 2 cents; cuffs, 3 cents.

4—Borrow one sheep; give 10, 5 and 4; return the borrowed sheep.

5—301 eggs.

The first prize, two dollars cash, is awarded to Fannie S. Huntley, Dover, Del.

Forty-three yearly subscriptions to FARM AND FIRESIDE are awarded as prizes to the following winners:

Alabama—M. D. Rockett, East Lake.
Arkansas—W. E. Moffitt, Havana.
California—Mrs. J. W. Rhoads, Hanford.
Canada—Mrs. Walter C. Scratch, Kingsville, Ont.
Colorado—W. H. H. Doane, Canon City.
Connecticut—H. R. Brockett, Bristol.
Delaware—Fannie S. Huntley, Dover.
Florida—Irving Williams, Tallahassee.
Georgia—Samuel Lewis, Red Oak.
Idaho—Alvin Mortenson, St. Charles.
Illinois—Mrs. J. M. Rummer, Mt. Pulaski.
Indiana—Fred E. Moore, Kingman.
Iowa—Mrs. G. D. Miller, Jr., Bedford.
Kansas—Sadie Houdyshel, Lawrence.
Kentucky—Mrs. S. F. Clark, Auburn.
Maryland—Charles J. Little, Jefferson.
Massachusetts—Edith A. Waite, Pittsfield.
Michigan—Mrs. Ed. Townsend, Ionia.
Minnesota—Nellie Meehan, St. Paul.
Mississippi—R. C. Wagner, Chesterville.
Missouri—Miss Floy Thurman, Troy.
Montana—Mrs. A. R. VanEman, Augusta.
Nebraska—Lucretia Smith, Crete.
Nevada—Vera Hasch, Reno.
New Hampshire—Charles Morrill, Grafton.
New Jersey—Mrs. Vanderwider, Paterson.
New York—Harry W. Aten, Groveland.
North Carolina—Mrs. A. L. Bright, Nealsville.
North Dakota—Mrs. F. E. Kindred, Cummings.
Ohio—Charles F. Tuttle, Springfield.
Oklahoma—T. G. Taylor, Stillwater.
Oregon—Mrs. Sarah E. Lee, Milton.
Pennsylvania—Miss Orvia M. Jackson, Shermansville.
South Carolina—Vester E. Garraux, Greenville.
South Dakota—Willie Curry, Elk Point.
Tennessee—Bernice Slater, Haley.
Texas—Florence L. Edgar, Austin.
Utah—Mrs. I. Christiansen, Santaquin.
Vermont—May Lilis, Roxbury.
Virginia—A. H. McDannald, Warm Springs.
Washington—E. L. Cline, Huntsville.
West Virginia—Harry Curry, Monitor.
Wisconsin—Earl Hale, Mauston.

A young lady, on being asked what they did with all the fruit on her pa's farm, replied, "We eat all we can and can all we can't."

CURES ANY DISEASE

A New and Wonderfully Successful Method of Curing All Chronic and Lingering Afflictions.

A Free Trial Package of This Remarkable Discovery Will Be Mailed to All Who Write.

Any one who suffers from a weak, disordered condition of the heart, lungs, kidneys, stomach, blood, liver, skin, muscles or nervous system should write at once for a free trial treatment of a new method that is rapidly displacing the old ways of curing disease.

DR. U. G. LIPES

Gout, partial paralysis, dropsy, locomotor-ataxia, rheumatism, neuralgia or any other disease resulting from high living quickly and permanently removed by the new method.

Weakness or debility in any form, whether in man or woman, entirely eradicated from the system by the new treatment.

Consumption, bronchitis, asthma, catarrh, impure blood, heart disease, kidney and bladder trouble and liver complaint cured to stay cured by the doctor's wonderful remedies.

If you are the victim of any malady or sickness which you have long wanted to get rid of, try one of Dr. Lipes' free treatments, and see how easy it is to be cured when the proper means are employed.

If you have aches or pains, don't feel well at times; if you are despondent and discouraged, tired out, it is because you have some terrible disease lurking in your system.

Why not write to Dr. Lipes, get a free trial treatment, and let him show you how quickly you can be cured by his new method? It makes no difference what your peculiar ailment may be, Dr. Lipes will send you a trial treatment entirely free of charge to prove to you that he can do as he claims.

Write to-day, telling the doctor what you wish to be cured of, and receive the free treatment for it by return mail. There are no conditions whatever. Dr. Lipes' generous offer is meant for everybody who suffers from disease in any of its various forms. Address Dr. U. G. Lipes, 112 Stevenson Building, Indianapolis, Ind. No one should miss this grand opportunity of securing the benefits of the doctor's latest discovery, since it costs you nothing.

Catarrh can be Cured

Catarrh is a kindred ailment of consumption, long considered incurable; and yet there is one remedy that will positively cure catarrh in any of its stages. For many years this remedy was used by the late Dr. Stevens, a widely noted authority on all diseases of the throat and lungs. Having tested its wonderful curative powers in thousands of cases, and desiring to relieve human suffering, I will send free of charge to all sufferers from Catarrh, Asthma, Consumption, and nervous diseases, this recipe, in German, French or English, with full directions for preparing and using. Sent by mail by addressing, with stamp, naming this paper.

W. A. NOYES, 847 Powers' Block, Rochester, N. Y.

IS YOUR HUSBAND, SON OR FATHER A

Drunkard

If so, send us your name & address, we will send you a package of our "Secret Cure" free, in a plain package with full directions how to give it secretly in tea, coffee, food, etc. It is odorless & tasteless, & will cure this dreadful habit, quickly & permanently without the patient's knowledge or consent. It is a positive & permanent "Secret Cure" for the Drink Habit & will cost you nothing to try it.

MILO DRUG CO. Dept. 144, St. Louis, Mo.

Free Rupture Cure

If ruptured write to Dr. W. S. Rice, 1555 Main St., Adams, N. Y., and he will send free a trial of his wonderful method. Whether skeptical or not get this free method and try the remarkable invention that cures without pain, danger, operation or detention from work. Write to-day. Don't wait.

$3 a Day Sure Send us your address and we will show you how to make $3 a day absolutely sure; we furnish the work and teach you free, you work in the locality where you live. Send us your address and we will explain the business fully, remember we guarantee a clear profit of $3 for every day's work, absolutely sure. Write at once. ROYAL MANUFACTURING CO., Box 810, Detroit, Mich.

This exquisite Calendar in ten colors

is an **exact reproduction** of the charming water-color originals by Maud Stumm, the noted American Water-colorist. Whether you are fond of sweet faces, pretty, dainty gowns and dresses, or delicately tinted, sweet-smelling flowers, this calendar, in **all the original tints and colorings**, will appeal to you. There are six different designs: One is of a dashing brunette, arrayed in an airy gown of pink, and carrying an immense bunch of holly in one arm and some sprigs of mistletoe in the other hand; another is an auburn-haired beauty, gowned in a soft, clinging dress of white, and carrying a gorgeous bunch of American Beauty roses; another is a perfect blonde, dressed in soft greens, and holding some purple lilies. The three which we do not show, owing to lack of space, are of a girl in yellow and white, carrying chrysanthemums; one in light blue, holding pink roses, and another in a lavender evening gown and exquisite opera-cape, with an immense bunch of violets on her breast. These are made up in different combinations of three sheets each. The three designs we show here will give you an idea of the exquisiteness of them all.

Given Free

One of these beautiful calendars will be sent **FREE** to any one inclosing 40 cents for a year's subscription to the FARM AND FIRESIDE.

(When this offer is accepted no cash commission will be allowed, neither will the name be counted in a club)

The three sheets (each 13 by 10 inches) are tied together with a silk ribbon, so that they may be readily hung up.

Present Subscribers sending 40 cents may extend their subscription one year from time their present subscription expires, and secure this exquisite three-sheet calendar.

Order as "No. 17"

We will give this beautiful calendar to any one sending us one new subscription of some one else (not in their own family) to the FARM AND FIRESIDE.

Address FARM AND FIRESIDE, Springfield, Ohio

$1,000.00 Cash Will Be Given For Solving Puzzle No. 1

Just a simple little box with fifteen blocks, numbered from 1 to 15, as shown in the illustration. Place them in the box exactly as shown in the large illustration, Fig. 1; that is, in straight numerical order, except that the "15" block is placed in front of the "14" block.

Puzzle No. 1 is to move the blocks about (without jumping, turning the blocks, or removing any of the blocks from the box) and bring them in the positions shown in Fig. 2.

For the first correct solution of this puzzle in the fewest number of moves, according to these conditions, received before February 20th, a cash prize of One Thousand Dollars will be given, provided the party obtains a puzzle with certificate from us.

$25.00 in Other Cash Prizes

Puzzle No. 2 Start with the blocks as in Fig. 1; move the blocks (without jumping, turning the blocks, or removing any of the blocks from the box) so as to get the numbers in regular order, but with the vacant square at the upper left-hand corner instead of the lower right-hand corner; see Fig. 3.

Puzzle No. 3 Start with blocks as in Fig. 1, and move blocks to positions as in Fig. 4. The blocks must be slid about, and must not be jumped or taken out of the box.

These prizes are offered to only those securing puzzles of us.

Every one contesting for any of these Prizes MUST inclose with their solution a certificate found in each box of our Puzzles.

For the first correct solution, in the fewest number of moves, of either Puzzle No. 2 or No. 3, received between February 10th and February 20th, we will give $10.00; for the second, $7.00; third, $5.00; fourth, $2.00, and fifth, $1.00. In case two or more send correct solutions in the same number of moves, the post-mark on the envelopes will decide which is first.

In every instance it must be borne in mind that it is a question of speed as well as accuracy. It must be definitely understood that the prizes will be given to the subscriber sending in the correct answers in the *fewest number of moves*. We cannot answer any questions about this puzzle. Place nothing in your letter except the certificate, your answer, and your name and address.

Fig. 1 The correct way the blocks *must be placed* before commencing the puzzles.

One of the "15 Puzzles" in a neat box will be sent by mail for 15 cents.

Two mailed for 25 cents.

Three mailed for 30 cents.

A certificate is included with each Puzzle, which entitles holder to compete for all prizes offered.

1	2	3	4
5	6	7	8
9	10	11	12
13	14	15	

Fig. 2 These are the correct positions that the blocks will be in when Puzzle No. 1 is correctly solved.

	1	2	3
4	5	6	7
8	9	10	11
12	13	14	15

Fig. 3 Correct positions that blocks will be in when Puzzle No. 2 is correctly solved.

4	8	12	
3	7	11	15
2	6	10	14
1	5	9	13

Fig. 4 Correct positions that blocks will be in when Puzzle No. 3 is correctly solved.

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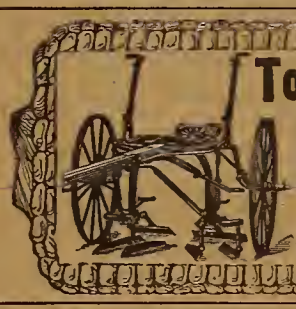

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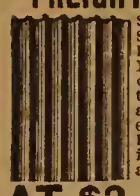

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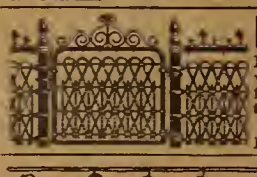

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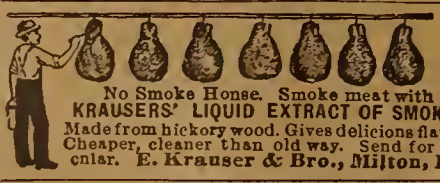

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Bonny Prince Jack

By H. WHITTIER FREES

MISTRESS DOROTHY

BONNY PRINCE JACK we called him in the royal days of his reign; and never was a monarch more beloved. He was king of all that his big brown eyes surveyed, and ruled by the irresistible witchery of his pretty, winning ways. His dominions were no larger than the limited boundaries of his master's home, but the Czar of all the Russias was no more absolute. The coquettish droop of his ears, the "smile" that was all his own, and the bewitching drollery of his cunning movements, endeared him to all who knew him. He was only a dog, "a mongrel cur of low degree," yet dogdom holds no successor.

In a secluded corner of our garden-plot, under the drooping branches of the lilacs, a little mound of earth marks his last resting-place. To the loving hearts that mourn his loss the spot seems hallowed by affectionate memories.

Little Dorothy—demure and dainty mistress of our hearts and home—was five years old on the very day that Jack came to his tragic end. She was still too young to fully understand Death's irrevocable parting, and as we buried Bonny Prince she did not seem to realize that she would never see her old playfellow again.

It was only a few days till the realization came to her. She was standing by her mother's knee, when she looked up, with serious, tear-dimmed eyes, and asked, "Mama, won't I ever see Jacky again—some time?"

"No, Dorothy. Poor Bonny Prince is dead."

"But, mama—some time," she repeated, with childish persistence, "when I'm a big—big girl?"

The mother slowly and sadly shook her head, fondly stroking the bonny, golden curls.

Still the child was not satisfied. "Never—never, mama?"

"Never—never, darling."

The tender lips were quivering as she stole softly from the room. Even a mother's loving touch could not ease the pain of her heart's loneliness.

A few moments later, having occasion to pass through the nursery, I discovered Dorothy lying on the couch, her face buried in a cushion, sobbing as though her heart would break.

Divining at once the reason of her grief, I gathered her in my arms, and tried to comfort her by a tale of the noble St. Bernards of the Alps, and how the intelligent animals pilot storm-lost travelers back to the friendly hospitality of the holy brotherhood of monks. When I had finished, she was already smiling bravely through her tears.

"They're awfully nice doggies, papa, but—but—" Here her voice trembled despite her efforts to be brave, as she added, with plaintive emphasis, "Jacky was nicer, wasn't he?"

I indorsed the sentiment with a hearty kiss, and then turned away with a sigh. The wound in my own heart was still too fresh for such a thrust as that.

They had been as inseparable as only constant chums can be. Often had I watched this winsome little maiden tripping gaily down the garden with Bonny Prince beside her. It formed a picture worthy of a Raphael's brush. No knight of old could have attended his fair lady with more gallantry. Upon these occasions he was never frivolous, but walked with uplifted head—regal, majestic, appearing for all the world like some diminutive lion. If his queenly mistress condescended to reward his faithfulness by a loving word or touch, his happiness would reach its zenith in a low, gentle bark of appreciation.

When tired out by their romping through the garden, she would often throw herself down upon the grass, and Bonny Prince as quickly stretched himself out beside her. In a moment a chubby little hand would steal lovingly around his neck and nestle confidingly in his warm, thick fur. So would Mistress Dorothy take a nap, confident in her protection. Nothing could tempt her guardian to desert his post of duty. The sweetest delicacy known to a canine could not have moved Bonny Prince an inch. As a test of his fidelity I once offered him a titbit, standing some little distance away, so as to lure him from his charge. Upon any other occasion he would have taken it with keenest relish, but now his big brown eyes seemed to regard me only with deep reproach, as though I should deem him worthy of such a bribe. The little arm of Mistress Dorothy was a stronger factor than my tempting morsel. So long as he felt it clasping his neck in confidence and love, so long he remained true to that perfect trust.

The early life of Bonny Prince—the trials and triumphs of his puppyhood days—remains wrapped in the dark obscurity of the past. His was surely not a noble heritage; for as one old lady expressed herself upon his installation in our home, "he looked like a common 'yaller' alley dog." Perhaps the simile was more appropriate than elegant, after all, born as he was to the pitiless charity of the highways.

But the lovable qualities that developed later on in his career amply atoned for his lack of "blue blood." His "smile" alone was infinitely superior to any badge of pedigree. Ancestry? Ancestry be hanged! A dog's a dog "for a' that," and their manners "mak' 'em."

The first biographical data obtainable dates from a cold and blustering morning in March, when a kindly disposed old gentleman came upon a pair of street-gamins urging a poor wretch of a dog along by a rope. The miserable, gaunt-looking creature seemed ready to drop from sheer exhaustion. So impressed was the old man by the pitiable condition of the animal that he approached the urchins with a proposition that resulted in their waiving all rights of ownership for a small monetary consideration.

"WHEN CANDLE-LIGHTS ARE GLEAMING LOW"

The poor fellow had become so inured to abuse and ill treatment that as the tender-hearted stranger attempted to ease the cord around his neck, his kindly touch was resented with a snarl and a vicious snap.

From that day the friendless outcast became a respectable member of society, and was introduced into our home as a welcome guest. At first he was strangely shy, and when a hand was raised to pet him, he would crouch to the floor with a whimper of fear, as though he expected a blow. Poor fellow! He had never known what kind treatment meant, and for a while was unable to appreciate the caresses lavished upon him.

A good, warm bed seemed so little short of a revelation that for a time he regarded it with suspicion. The immeasurable gulf existing between a sheltered nook afforded by an ash-barrel and the downy softness of a goat robe was not to be bridged over in a single day. In after-years, when bedtime came, "and candle-lights are gleaming low," how cunningly he laid his head upon the pillow, and watched with sleepy eyes his Mistress Dorothy tuck the blanket snug and warm about him, and then with a sigh of unutterable content close his eyes to sleep, and "hunt in dreams."

And three full meals a day! Never, even in the rosiest of his puppyhood dreams, had he conjured up such visions of extravagant living. The haunts of former days had seldom provided him with more than one.

From the very moment that Dorothy's fingers first entangled themselves in his fur she became his favorite. He would not allow even the slightest pretense of any harm to come to her. I remember distinctly that on one occasion I caught Dorothy up rather suddenly, and lifted her to my shoulder. The movement was so unexpected to her that she involuntarily gave a little cry of fright. Quick as a flash Jack left the floor, and gripped my wrist with his teeth. He loved his master, but he fairly worshiped his Mistress Dorothy, and thinking I had hurt her, he obeyed the sudden impulse to protect her. He was penitent enough afterward, however, for he tried to lick the wound that he had made, and his eyes were so full of sincere regret and honest sympathy that I pardoned him with a pat, for I hadn't the heart to scold him.

As Jack became more familiar with his surroundings his timidity gradually wore away and he adopted a certain dignity of manner that well became him. Often would he enthrone himself upon the front porch, stern and dignified as a patriarch. If any one passed who knew his dogship, they invariably spoke to him. It was not "Hello, doggie"—that is, if you did not care to have his "serene highness" give you the

[CONCLUDED ON PAGE 15]

THE "SMILE" THAT WAS ALL HIS OWN

FARM AND FIRESIDE

PUBLISHED BY

THE CROWELL PUBLISHING CO.

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Mr. Greiner Says:

THE FORWARD MOVE IN AGRICULTURE.—New York State leads in agricultural research as well as in agricultural production. With such an institution as Cornell University, under the management of the scholarly Doctor Schurman, ably supported by Professors Roberts, Bailey, Craig, etc., to boast of, this state should also lead in the education of and educational facilities for the common farmer. Yet it does not seem to do so, and several Western states outrank it in some phases of agricultural education. At some of the Western agricultural colleges the number of students count up to a far greater figure than those who take an agricultural course at Cornell. The facts are that at Cornell only a limited number of students at the winter, or short, course (one of the most important so far as the education of the farmer for business farming is concerned) can be accommodated, and that admittance must be refused to all above that number. This should not be. The prime cause for this state of affairs is that, in the first place, the farmers themselves have thought too little about it to make a fuss over it, and that consequently the great educator, Doctor Schurman, has heretofore not been so much concerned about the "forward move in agricultural education" as about educational problems in other fields. The legislatures, also, have been far too slow to recognize this great need of the farming classes and farming interests to aid them much by appropriations.

AGRICULTURAL HIGH SCHOOLS.—So thoroughly had the farmers of Niagara County become aroused over matters of agricultural education and the part the college ought to take in it, that President Schurman thought best to come and have a talk with them. The visit of the Farmers' Club at Cornell in the summer of 1902 had not been wholly satisfactory, as it was thought that agriculture at the University had not been given full recognition. But Doctor Schurman, by his frank words and the promise of making earnest efforts for the solution of the problem of agricultural education, has succeeded in disarming all adverse criticism. His plans involve the trial of an agricultural high school associated with the college, and if this proves successful and meets the expectations of its friends, then the extension of the agricultural-high-school system over the whole state, giving one such school to every judicial district. This would certainly be a big step in advance. I do not know what legislative obstacles there may be in the way of a realization and materialization of the plan proposed by Doctor Schurman. Politics should have nothing to do with the matter. If it has, it can only be bad politics. The state executive and the majority of the members of our state legislature owe too much to the farmers of the state (the former his political existence and the latter its political complexion) to be able to safely refuse to do anything that is fair and reasonable to aid the farmer in bettering his condition and in securing the same educational advantages that have been put within the reach of other classes.

CORRESPONDENCE SCHOOLS.—The common farmer and his boy who have had a rural-school education and nothing more seldom attend farmers' institutes and farmers' meetings. Why? Simply because they are unacquainted with the technical terms made use of in lectures and discussions. The language of modern agriculture is "all Greek" to them. And there is at present no place open to them where they can learn to understand these terms and their meaning and the language in use by speakers and teachers and in books and papers unless they secure the privilege of attending at least a short course at some agricultural college. Few, comparatively, can do that, and many that would are not admitted. The only means outside of this is the reading-course or the correspondence school. Agricultural colleges offer a "reading-course," the only difficulty being that in many lines we have no text-books suitable for self-instruction in the very rudiments of those sciences which relate to agriculture. Realizing the utter lack of opportunities for the farmer and his boy to secure the preliminary technical education which would fit him for the understanding of modern agricultural terms and language, I once attempted to supply a substitute by a series of articles on practical farm chemistry, or rather on the chemistry of manures and soils, which were published in the columns of the FARM AND FIRESIDE some ten or a dozen years ago and afterward issued as a book. This book has been used as a text-book by a number of agricultural schools, but it is not up to date, and needs revision and a thorough overhauling in order to fit it for such a purpose. I believe, however, that a text-book for self-instruction (or for use in common rural schools, if these ever should be made to include instruction in agriculture for the older farm boys) must be written and arranged on somewhat the same lines as found in the book mentioned. They must be written in a popular style, in language easily understood, free from dryness and meaningless figures, and readable enough to arouse the boy's keenest interest. When dealing with such sciences as physics and chemistry, this is easily accomplished, for it is boy nature to want to find out what things are made of and how they work. In oral instruction the use of proper apparatus and demonstration by simple experiments are great helps. In the absence or unavailability of agricultural-school instruction, books and correspondence schools are about the only things that can take the place of the others. Before me, for instance, is a set of agricultural text-books sent out by the Home Correspondence School. There are various other schools of this character in the country, and I believe they are quite useful and serviceable. The agricultural course is presented in three volumes, written by Wm. P. Brooks of the agricultural college at Amherst, Mass. Volume I. treats of "Soils, and How to Treat Them;" Volume II. of "Manures and Fertilizers and Farm Crops;" Volume III. of "Animal Industry." Any one who has a good common-school education and a fair degree of intelligence can understand the language used in these text-books if he will go at it in a methodical way—start at the beginning, and go right through step by step. They are not meant for reference-books or dictionaries, but are intended more particularly as a basis for instruction by lesson leaves, letters, questions and answers—in short, by direct correspondence with the teachers at the college. Professor Bailey has charge, in the same way, of the course in horticulture, and other leading educators of their respective branches of learning. The course, including text-books, is comparatively cheap.

AGRICULTURE IN COMMON SCHOOLS.—The key to the solution of this great educational problem, however, I believe is the common rural-district school. The time will come when at least the rudiments of such sciences as physics and agricultural chemistry are embodied in the common rural-school course. When, at the age of fifteen or sixteen years, the farmer's boy leaves the country school he will know something about electricity, gravity; about the most common chemical elements and compounds; he will understand the nature of the common things and the common phenomena of Nature around him, and be in a position to go at his task of making the soil yield him profitable crops understandingly and successfully. It will fit him for better citizenship, also, by broadening his views and freeing him from a feeling of dependence.

Mr. Grundy Says:

STRAW HEN-HOUSES.—Three readers of the FARM AND FIRESIDE take exceptions to my remarks about the straw hen-house mentioned some time ago. All three of these readers live in sections where the rainfall, especially during winter, is light, and naturally straw would remain dry all winter. In sections where there is much rain during the winter a straw house becomes damp through, and all the conditions for roup and rheumatism are present, and the result is disaster. Just twelve years ago a neighbor asked me if I did not think a straw house would make a grand place in which to keep a lot of laying hens through the winter. I had never tried it, but I judged it would. After studying the matter over for some time, I decided to try one myself. Other matters prevented me from making the experiment that winter, so I took note of my neighbor's efforts along that line. He built a house of posts and poles, and buried it under about six feet of straw. At a distance it resembled a strawstack thirty feet long by twenty feet wide. On the south side he left an opening four feet wide by six feet high for a door, and made a yard about twenty feet square in front of the door. He put in eighty hens, and fed warm mashes in the morning, chopped vegetables at noon, and scattered grain over the straw-covered floor in the afternoon. He got an average of six eggs a day during January, which increased to fourteen in the early part of February. About the middle of February the flock was attacked by roup, and over half died in two weeks. He removed the rest to a house made of boards, and used four dollars' worth of medicine on them, and they began laying about the middle of April. As he pulled the house down he said to his hired man, "There's another dream of wealth gone glimmering." About the time he was building his straw house a man in Indiana wrote me asking if I did not think that a straw house was a good scheme. I thought it was, and told him so, giving suggestions as to the proper construction, etc. The following spring I wrote him, asking how it panned out. After berating me roundly for advising him to build such a place, he told me that he was out of pocket about fifty dollars, and that I ought to send him that amount for leading him into such a trap. Most of his fowls had died of roup, and he had to sell off the remainder and get a fresh start. The fact is, both houses proved too warm and "stuffy," the straw became damp and moldy, the fowls took cold and as all the conditions for roup of the most virulent type were present, it was only natural that it should quickly develop and kill the birds. Fowls cannot be kept in a warm, stuffy house in winter and remain healthy. If the house is warm and close they take cold on coming into the open air, and more than likely some of these colds will develop into roup. Fowls need to be kept comfortable, but not too warm. A dry, clean house with a temperature that never gets so low as to freeze combs is the most suitable. This means a house in which the temperature can easily be regulated by means of ventilation. Fowls need lots of fresh air when the weather is mild, and when it is cold the house should be closed tight enough to prevent the frosting of combs.

HARDY CATALPA.—Incidentally my Dakota critic mentions hardy catalpa as not a suitable tree for planting in his state. That is true, and I think I have not recommended it as a forest-tree north of forty-one degrees of latitude. For his section the Department of Agriculture suggests bur-oak, green ash, white ash and red cedar. Nebraska parties recommend hardy catalpa for southern Nebraska, and very likely it will succeed well in that region. If I lived where the Dakota reader does I would plant red cedar, and also try the Rocky Mountain spruces, for wind-breaks, and the two varieties of ash mentioned for posts, poles and wood. Hardy catalpa is a grand tree to plant in sections where it succeeds, and that is over a large extent of the Middle West, between latitudes thirty-five and forty-one. In planting forest-trees one must use the same judgment exercised in sowing wheat. It would be utter folly to sow spring wheat in this section, while in Dakota it is the very thing to do. I am not "lamenting" because people are not planting as many trees as they should, but I am advising them to plant, and to plant now. And the young man who plants wisely now will reap a sure and profitable harvest when his trees are ready for the ax.

PLANT FOREST-TREES.—Not long ago I overheard a farmer discussing the price of lumber with a lumber-dealer. Said the farmer, "I can't see why you charge such high prices for lumber. When I was in Arkansas and Louisiana a few years ago I saw millions of acres of pine timber that was equal to anything that ever grew in Michigan. The trees stood so thickly that one could not see a hundred yards ahead."

"Yes," replied the dealer, "and now there's a sawmill on every section of it running day and night! How long do you suppose it will last at that rate? I sold you oak posts five years ago for nine cents apiece. Now the same posts will cost you fifteen cents. In a few years more they will be twenty-five cents apiece. Why don't you farmers grow your own posts? I will be unable to get them for you at any price soon. Every farm of eighty acres should have at least one acre of trees growing on it. One thing is certain—you will either have to grow it or go without, and that pretty soon."

When Robert Douglas was alive he was constantly urging farmers to plant useful forest-trees. For many years I have been doing the same thing, yet not one farmer in a thousand has planted a tree for his own use. The spade has scarcely yet started, though the ax has not stopped for a moment. I have a few letters from men who heeded the advice of Douglas, and planted forest-trees for fence and building purposes, and they are now glad they did so. Many have planted wind-breaks and shade-trees because the need of them was plain, and I have yet to see the one who is sorry he did so. The need of planting for fence and building purposes is now as plain as it formerly was for shade and wind-breaks, and it is to be hoped that farmers will wake up to that fact and begin planting, and that they will plant the most useful forest-trees that will succeed in the section they live in. The list is large enough for the whole country. The best guide for the planter is the trees that are native to his locality. Plant the most useful.

All Over the Farm

FARM THEORY AND PRACTICE

THE CLOVER-SEEDING.—Clover lays the foundation for successful cropping. Let others theorize as they please about the soil and its feeding, we know that where the heavy clover-sod is secured there is plant-food ready for a cash crop. The nitrogen is there, because clover contains a large amount of that element. It may have taken a considerable part of its supply from the soil, or if that source was badly deficient, it drew heavily upon the free nitrogen of the air, but in either case the element is present, and will be available as the clover-plant rots. The phosphoric acid and potash are present. The clover did not get them from the air, but it worked over some of the big supply in the ground, storing it up in itself, and as the plant rots these elements are ready to supply the cash crop that follows. As the clover grows and as it decays in the soil it is rendering tough plant-food available. But the one big, apparent fact to the practical farmer is that the fertility is there when the clover-sod has been grown and rotted, and the main thing to do is to secure the clover.

Where the clover is to be sown the coming spring, let me urge that the seed be divided into two lots, and that one half be put on the ground very early, and the other half a little later. We hesitate to risk all the seed on the ground as early as clover often should be sown, and some delay prevents the getting of plants sufficiently strong after harvest to go successfully through drought. Divide the seed, but do not put the second half on much later than the usual seeding-time. Early seeding is without doubt the surest.

HEAVY SEEDING.—We should learn from successful men. Those who are making a signal success of growing grass and clover practise heavy seeding. In the cases of the most notable successes, of which much has been written in the last few years, the amount of seed used by these men seems quite excessive. But they get the wonderful sods of which we read, and they attribute their freedom from failure in part to heavy seeding. Much of the surface of the soil is not in condition to well start a plant. Examine it closely after the seed has been sown, and you will see that this is true. Some seeds rest on tiny clods, others on little ridges, while a few inches away a seed has rolled down into a little bed, where it can root deeply and be protected by the soil around it. A large proportion of the clover-seeds we sow never make a safely rooted plant. They germinate where they lie, and start a root into the unfavorable soil immediately beneath them, and a dry fortnight ends their career. There must be enough seed to supply the favorable spots, and the remainder must be waste. If you doubt this, place straws by the sides of the plants on a small square of land, and watch the failure of those unfavorably situated, if the season is not the very best. Heavy seeding is the best insurance.

Weather that is hard on wheat is favorable to clover-seeding. When light freezes at night are followed by thaws and drying winds, the surface of the ground is made loose and open. The seeds can drop down out of sight or be buried by the first rain. Then four quarts of good red-clover seed should go on the ground, and about ten days later, when there is less danger of a late freeze, four more quarts to the acre should be sown, and the total amount is none too much for land that is not entirely favorable to clover. On newer land, or that rich in humus, a catch of clover may be so easily gotten that less seed and less care need be given.

Where red clover has not been doing well, and also where the seeding is with timothy to make a meadow, I prefer to cut down the amount of red-clover seed and to use some alsike. The seed of the latter is quite small, and two quarts of it replace four quarts of red. Alsike does better than the red on undrained land.

THE MEADOWS.—Timothy seeded in the spring rarely does well, but it is best to keep thin and bare spots in the meadow supplied with grass-seed, and a sprinkling of grass-seed in the spring may do a lot of good in thickening a meadow. It is surprising how much clover can be brought in among grass-plants, when the sod is thin, by sowing the seed right on the sod. The expense must be watched, and seed is too high to waste; but where land does not have enough plants, and yet the field is not to be broken, grass-seeds should be supplied to the thin places to contest the ground with the weed-seeds always present.

ROLLING MEADOWS.—About the most unsatisfactory work to be undertaken is that of rolling meadows in the spring, and yet the work should be done when the plants are badly heaved. For best results the rolling must be done early, because it is the drying winds that do the mischief with the exposed rootlets. The work must be done while the ground is sufficiently soft to let the roller press the plants back into place, and yet if the ground is too wet, the horses' feet will cut through and do damage. It is a case of catching the land just right; and there are seasons when one gives up in despair, and trusts to beating rains to do the business for him, and if they come right they do it well.

FERTILIZER FOR MEADOWS.—It is always a question whether a dressing of commercial fertilizer on the meadow in the spring will pay, even if the soil is thin and needing fertility. The price of the hay crop that follows determines the matter. But I am very sure that more farmers should do some experimenting in this matter. The fertilizer should be quickly soluble. Raw bone is too slow for spring use. The nitrogen should be bought in the form of nitrate of soda. This material quickly becomes lumpy, and it should be pulverized well to secure good results. One hundred pounds to the acre on cold land in a dry spring may prove a profitable application. A dressing of acid phosphate may pay in connection with the nitrate of soda. Where acid phosphate is used as an absorbent in hen-houses, the manure well pulverized is most excellent for grass. Close to good markets some fertilization of meadows is being found profitable, but where prices are not high the cost of the fertilizer is too big an item to risk only in an experimental way. Generally speaking, fertilizers should be used to start the sod, and a sod should be broken and rotted in the ground before it becomes thin. DAVID.

CONCRETE WALLS

I noticed an article in the FARM AND FIRESIDE asking what to do with the stone picked up on the farm. Broken stone, sand and gravel, with cement or lime make a wall as cheap as a one-inch board wall, including studding and foundation, in most places, and in some places cheaper. Here, where cement is one dollar a barrel, a wall a foot thick can be made as cheap as a box house-wall, and will be doing service long after the board wall has gone to decay. On most farms gravel and sand can be had, but in their absence coal-ashes and cinders make a very good substitute. The handy farmer can make his poultry-houses, hog-pens, sheep-pens, floors for his corn-cribs, and with skilled labor to help him, could also make his silo and barns—all of which would be much warmer and more substantial than when built of wood. G. H. MCCOMB.

TOO LATE TO GET HIM

In response to the cry for good help on the farm, a friend writes as follows of a man he knows: "He is a good, honest, careful man. He never is in a hurry. He uses good judgment. He is up with his work. He is the most careful tenant I know of."

Now, is not that a fine recommendation? Honest, careful, up to date, possessing good judgment. Who would not have such a man as a tenant? No use to rush for him, however. He has a place long before this, beyond a shadow of doubt. No man possessing such characteristics will ever be long out of a job, for the world is just starving for him and others like him. Diogenes hunted for such a man hundreds of years ago, searching about the streets with a lighted lantern and discouragement in every motion. Ever since the hunt has been going on with varying success. Now and then we find a man who comes up to the standard, and we start for him; but long before we reach him some one else has captured him, and we go back home despondent. It is only a short time ago that I heard a man say, "I would like to lease my farm, as I am in poor health, but I do not know of more than two or three men I would want on my place, and they are fast." That is the universal cry.

We are rather more unfavorably situated than many, in the fact that a few miles away a large city, with many shops, stands ready to take every able-bodied man who wants to work. There seems to be something fascinating about the regular hours and steady employment that makes it easy for men to turn their backs on the farm and its independence. The spirit of the age seems to be a readiness to lay down the free life of the farm for the slavery of the shop. So we are forced to take up with very indifferent help, and pay the highest prices for that. Many men last season paid as high as two dollars and two dollars and fifty cents a day for hands in haying and harvesting. We all know the farm cannot long stand such a tax as that.

We must admit that there are two sides to this question. Many employers are not as just with their help as they should be. They demand too much of their help. Their days begin long before daylight, and continue away along into the darkness of the night. They are ready to grant few privileges to their help. And so the breach grows wider and wider, and the end more and more uncertain. One man puts it tersely as follows, "The men I would have wouldn't have me, and the men that would have me I wouldn't take as a gift."

But we thank our friend for calling our attention to this "good, honest, faithful man." It is a consolation to know that there are such in the world. May their name never be shortened! If we are not worthy of them, may some kind fate make us so, and that right early! E. L. VINCENT.

AIMING HIGHER

We frequently read or see a complaint that the teaching and lecturing of such a one is too much in advance of the people most in need of the elevating influences of advanced practices or thought. "He is shooting over their heads," it is said. Well, it is sometimes good to get over the people's heads, for by skilfully doing so the people may acquire an inclination for looking up. The old, worn, restricted and restrictive paths are under foot—and the ruts, and the people need to be drawn somewhat from these.

Man naturally is an intelligent creature and an intellectual one, and finds that the development and exercise of his intellect bring him the most exquisite of life's enjoyments; and it is but natural that the thoughtful man enjoys the thing that induces intellectual activity, and feels an undefined compliment when the speaker or writer brings to him a new thought, or an old one with a new dressing of honest words.

I think this is particularly so with us country people in our teaching and our literature. We have been kept too long on the old, easy levels, and often really enjoy the invigorating influences of climbing a little; and man glories in the demand that his strength shall meet, whether the demand shall be made on his mind or his muscle, his endurance or his education.

So long have we farmers been told that we should plow deeply, how we should plant potatoes, weigh and test milk, not inbreed, not feed too heavily of corn, and a lot of other "stock" subjects played upon by those who talk and those who write, that many of us feel like asking for a more intelligent "why." We are not afraid of your talking over our heads, if you will talk plainly and to the point. Great thoughts about the operations of Nature and Nature's laws are very simple, and the simplest words may tell them. Big, unpronounceable or technical words we may not understand, and their being thrown at us may charm us as an exhibition of the skill of the thrower, but not necessarily impress us with his wisdom.

Aim up a little, gentlemen; we can lean back enough to follow you. W. F. MCSPARRAN.

COBURN LIVE-STOCK CHIEF

F. D. Coburn, Secretary of the Kansas State Board of Agriculture, has been appointed Chief of Live Stock at the Louisiana Purchase Exposition, to be held at St. Louis next year. The Kansas board has given Mr. Coburn two years' leave of absence, and he has accepted the work at St. Louis, and will at once assume the duties of his new position.

Rarely has an unsought honor fallen to a man so capable of meeting all the responsibilities involved. The St. Louis officials have taken their own time in the selection of a chief for this department—all too long for the proper organization of this work—but they are to be heartily congratulated on the appointment of Mr. Coburn. He is possessed in singular degree of the qualifications for a successful chief of live stock. He is a man in the West and of the West, and his life has been devoted to the upbuilding of the agriculture of that section. He is abundantly informed as to the breeds of live stock, is thoroughly versed in the technicalities of the trade, is a born organizer, an experienced commander, a safe counselor and an impressive exponent of the live-stock industry. A man of marked modesty and infinite industry, a man who thinks with his brains instead of his lungs, an originator of ideas and a campaigner who carries them systematically into effect, a broad-minded man of direct mental processes and rugged honesty, a man whose method of expression is suggestive of the breeziness and force of a Kansas zephyr, and a man who above all things holds American agriculture at heart, Mr. Coburn is eminently qualified for the discharge of the grave responsibilities which will devolve upon the chief who plans and conducts the greatest live-stock exhibit that the world has ever witnessed. For thirty years he has been in close touch and sympathy with the work, and has been a mighty public force in pushing it. His new position brings new opportunities, which will be utilized to the utmost to the glorification of American live-stock breeding.—Breeders' Gazette.

AWNLESS BROME-GRASS

Awnless brome-grass*, "Bromus inermis," has been grown for many years in Europe, where it is native. In recent years it has been tried in many parts of the United States with varying degrees of success. It has proven most successful in the semiarid regions of the Northwest, from Kansas and North Dakota to Washington. It is especially adapted for those regions where the rainfall is insufficient to grow forage crops without irrigation and yet the conditions do not approach the aridity of the desert. Such regions are found in the eastern part of the Great Plains, plateaus in the Rocky Mountains and the Palouse region of eastern Washington.

The seed may be sown broadcast in the spring, at the rate of about twenty pounds to the acre. The stand is usually thin the first year, but the second year it thickens up and forms a sod. In localities where winter wheat can be grown, brome-grass can be sown in the fall. It is valuable for hay, but more especially for pasture. During midsummer the foliage dries up more or less, but gives good pasture in early spring and late fall. The second year it yields large crops of palatable hay, but thereafter it is better adapted for pasture than for hay.—Bulletin United States Department of Agriculture.

* For further information concerning this grass, see Circular No. 18, Division of Agrostology, United States Department of Agriculture, "Smooth Brome-grass."

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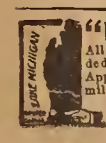
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Gardening

By T. GREINER

SETTING PLANTS BY MACHINE.—The large, expensive machines for setting cabbage, cauliflower and tomato plants do the work quite well. Indeed, they are largely responsible for the extension of the winter-cabbage business in the United States, and perhaps elsewhere, and for the undeniable overproduction of late cabbages. I am asked whether such machines or similar ones are used to any extent in setting celery-plants. They are not, and I doubt whether a machine will ever be built that can successfully compete with the nimble fingers of active youngsters or skilled men in the setting of close-planted things like celery and onion plants.

GOOD WINTER SQUASH.—I have tried every way to get a winter squash that cooks dry and mealy rather than "squashy." The Hubbards, Warted Hubbards, Golden Hubbards, etc., which I have grown for some years, seemed to be as good as ever in outward appearance, and yet they don't seem to cook right. They are wet and flavorless. Is it the soil that does it, or what is it? Years ago I used to have these squashes just as dry and nice as any one could desire, and I still occasionally get a squash that is all right out of a lot; but the average is poor. This year some seedsmen offer the Delicious squash, which they claim surpasses even the Hubbard in its prime, and is the most delicious of all known varieties. I hope this will prove true. I like a mess of dry, sweet winter squash occasionally.

TOMATOES DIRECTLY FROM SEED.—One of the Southern experiment stations has made trials with tomatoes grown on plants that were started in hotbed or greenhouse and transplanted compared with those grown on plants started directly from seed in the field. The latter came out ahead in earliness. I hope my friends will not be misled into the belief that such is the rule. Much of the outcome, of course, depends on the management of the plants started under glass. For my part, I cannot get ripe tomatoes in July, or even in August, unless I start plants of early varieties along in February, transplant them once or twice, and give them plenty of room to make them grow stout and stocky, so that they can be transplanted without checking growth. But if you start the seedlings in hotbed or cold-frame in April, and make them spindling by inordinate crowding, and then set them out in May or early June with little root and tall, limp stalks, where it will take them several weeks to recover from the shock and begin growth anew, the plants grown from seed sown in open ground in May might give ripe tomatoes in advance of the others.

EARLY TOMATOES.—One of our leaders in earliness for the past few years has been Earliana (Spark's Earliana). Last season there was much complaint about it. On my grounds it was nearly a failure. Usually it makes but little foliage, but sets fruit heavily—in fact, excessively. This season I find Nolte's Earliest offered by seedsmen as "appearing to adapt itself to a greater variety of conditions than Earliana, but being otherwise very similar to it in earliness, size, shape of fruit and vine. The quality is excellent." "American Gardening" (trial grounds) speaks of Nott's Early as perhaps the earliest of all, being bright red, but fruit very irregular and coxcombed, while "Earliana is dark red, a good bearer, but not as early as others." My earliest fruit last season—unfortunately not enough of it—came from Mills (Mills' Earliest of the World). Maule's Early also proved a good bearer, extremely early, and fruit large and reasonably smooth. If we grow the Earliana, and probably Nolte's Earliest and Maule's Early, and other first-early sorts that make comparatively little vine or foliage, we should bear in mind that they need very fertile soil and more nitrogenous food than the later sorts, which are apt to run largely to vine, anyway. Don't be afraid to use plenty of good, old manure in the soil where you plant Earliana and others of that class. It is the only way to get foliage enough to make large, smooth fruit.

BETWEEN TWO FIRES.—In many instances last season the foliage of our apple and pear trees was injured by spraying with Bordeaux mixture, even where the latter was prepared in accordance with the official formula. The lime may have been washed away by the continuous rains, thus giving play to the corrosive effect of the copper sulphate. Our experts now advise the use of an excess of lime in a rainy season. This is left open to the suspicion, however, that the excess of lime must in a measure neutralize the fungicidal properties of the resulting mixture, and we may be between two fires, having the choice to subject the foliage of our fruit-trees to injury by fungous diseases or by the application of our spray mixtures. On the other hand, we have the report of instances in which apple-trees thoroughly coated over with a Bordeaux mixture made with three times the proportion of lime officially recommended bore a nice clean lot of apples last year, while trees around them not sprayed had nothing but worthless, scab-covered apples. For my part, I have never seen the least injury result to the foliage or fruit of my apple or pear trees from spraying with properly prepared Bordeaux mixture.

BEST STRAWBERRIES.—For myself, as previously stated in these columns, I think highly of the Brandywine as an amateur's and general-purpose strawberry. It is large, of high color, good flavor, and on my grounds makes a healthy plant and gives good crops. What more can we ask, especially as the variety is a good plant-producer also, and needs no other variety close by to make it bear full crops, as is the disadvantage of the pistillate sorts. A friend in Ohio, who has observed the character of our soil here, says it would be well to try the Sample, which he finds on similar soil to be his very best, and a regular exhibition berry. He sold a lot of them last season at twenty-five cents a quart, while some fine Ohmers went begging at ten cents a quart. I will surely plant some Samples in the spring. It is a variety which for some reason I have failed to try thus far, although it surely has been quite well advertised. Our friend also states that, like me, he has discarded the Rough Rider. But we have earlier and later berries than Brandywine. The Michel's Early gives fruit ten days or so ahead of Brandywine; the Gandy ten days or so later. We must have them all to extend our season of strawberry enjoyment over the longest possible period.

HEN-MANURE FOR CORN AND VEGETABLES.—R. C. W., of Haddon Heights, N. J., writes that he has bought a small place, soil sandy, thin and very weedy, which he intends to plant to corn and garden vegetables. He has a quantity of hen-manure, and would like to know the best and most effective way of using it, especially with a view of getting as much benefit as possible from it the first season. The composition of hen-manure varies greatly. The best—which is that coming from high-fed fowls and not too wet—contains about thirty pounds each of nitrogen and phosphoric acid and fifteen or sixteen pounds of potash to the ton. It is a most effective manure for garden crops. I usually apply it broadcast after plowing and before harrowing. It should be well distributed and thoroughly mixed with the soil. Several tons of it can be used an acre with marked effect; but as it is weakest in potash, additional dressings of muriate of potash or of wood-ashes may be made. I would use it preferably for garden crops, and reserve for corn only that portion not needed for the garden. For corn it should also be applied broadcast. I do not believe much in hill-manuring, which often appears to be effective by giving the plants an early and vigorous start, without however holding out to the end, so that the manured portions seldom give a much bigger crop than the unmanured. Hill-manuring leads to stinginess with the manure, and that does not pay. For corn you may apply dissolved South Carolina rock, say from three hundred to four hundred pounds an acre at a cost of two dollars to three dollars an acre, and one hundred pounds or more of muriate of potash at a cost of about two dollars and twenty-five cents an acre. This, I think, will give you good results on your thin, sandy soil. At the last cultivation sow crimson-clover seed, plowing the crop under the following spring.

Fruit-Growing

By S. B. GREEN

GRAFTING-WAX.—A. S. A., New Albany, Pa. For practical grafting I think you will find the following recipe will give very good satisfaction: Resin, four parts by weight; beeswax, two parts; tallow, one part. Melt together, and pour into a pailful of cold water. Then grease the hands, and pull the wax until it is nearly white. When ready, put the balls of wax into warm water, so as to soften them for use.

FRUITS FOR MONTANA.—J. I., Rancher, Mont. I would suggest that you consult the fruit-list of the Minnesota Horticultural Society for hardiest fruits, which is as follows: Apples of the first degree of hardiness for planting in Minnesota are Duchess, Hibernal, Charlamoff, Patten's Greening. Apples of the second degree of hardiness are Wealthy, Longfield, Tetofsky, Malinda, Okabena, Peerless. Crabs and hybrids for general cultivation are Virginia, Martha, Whitney, Early Strawberry, Minnesota, Sweet Russet, Gideon's No. 6, Briar Sweet, Florence, Transcendant. Plums for general cultivation are De Soto, Forest Garden, Weaver, Cheney, Wolf, Rollingstone, Wyant, Surprise. This society does not recommend any pears or cherries, but the hardiest kinds of pears that I know of are Flemish Beauty and Keiffer. Of the cherries, the Early Richmond and Wragg are perhaps the hardiest of the good kinds. If hard frosts come as early as September 15th, you will find it difficult to ripen some of the later plums given in the above list, and I do not know of any prune which would probably ripen with you. Possibly the best for you to try is the variety known as German prune. The Wealthy apple should be ripe with you before September 15th, although it would not be as highly colored as if it was left on the tree longer. I would not recommend your growing the Wolf River apple, as it is rather tardy in coming into bearing. While the fruit is large and showy, it is not popular.

SPRAYING NOTES

It is reported that during the past season the foliage of apples was injured in many instances when sprayed with Bordeaux mixture made in the ordinary way. It has also been noted that wherever lime was added in excess to the Bordeaux mixture that the amount of injury was correspondingly lessened.

In a recent Cornell bulletin it is stated that in one large orchard where as much lime was used as could be forced through the nozzles (nearly three times the amount by formula), no injury to the crop occurred, and the crop was one of the largest in western New York.

While the lime has no special value as a fungicide, and it is used chiefly to hold the copper solution to the tree and to neutralize the free acid, yet last season, for some unknown reason, it seemed to have had a very beneficial effect in preventing the burning of the foliage. It is stated in this bulletin that experience seems to warrant that in rainy seasons at least twice the regular amount of lime should be used in making the mixture.

SPRAYING IN RELATION TO PLANT DISEASES

The fact needs repeated emphasis, that spraying to control fungous diseases of plants is primarily a preventive measure. If the applications are delayed until after the plants have become diseased, very little can be accomplished by the use of fungicides. In order to insure the greatest degree of protection it is necessary to keep the foliage as completely covered as possible with some fungicide during the period of growth of those diseases to which the plant in question is subject; otherwise the very minute spores of the diseases liable to attack the plants in question may lodge on unprotected spots, and so develop their respective diseases within the tissues of the host. For this reason repeated applications are necessary. As the object is to keep every portion of the foliage covered with the fungicide used, it is obvious that very careful attention to its application is essential.

Failure to make the applications thorough is the source of much dissatisfaction with the results of spraying.—Bulletin United States Department of Agriculture.

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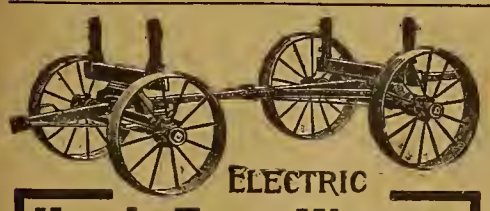

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In the Field

THE HARDY CATALPA

A STUDY OF THE TREE FOR FARMERS OF THE MIDDLE WEST

"THE HARDY CATALPA," a bulletin just published, forms another contribution to the series of studies of American commercial trees undertaken by the Bureau of Forestry. Its value will be greatest in the Middle West, where the catalpa has been planted for many years with varying success, and where even now it is imperfectly understood. The farmer of the prairie states who desires to put a part of his lands into catalpa, either for profit in selling posts and ties or to supply his farm with timber, will find in the bulletin valuable information clearly and simply given.

The bulletin is in two parts. Wm. L. Hall, Superintendent of Tree Planting, discusses "The Hardy Catalpa in Commercial Plantations," while Dr. Herman von Schrenk, of the Bureau of Plant Industry, writes of "The Diseases of the Hardy Catalpa." Mr. Hall gives the results of careful studies of the Munger, Farlington, Hunnewell and Yaggy plantations, all in Kansas. The most important facts developed by him are as follows:

"Hardy catalpa makes its best growth on very rich, deep soil. In the Farlington forest the best returns on the best soil are almost five times as great as on the poorest.

"Grown in pure stand, the catalpa should be protected from the wind by shelter-belts of taller trees. A thin belt of cottonwood on the windward side of a plantation will protect the edge trees and allow them to make much taller and straighter growth; even an osage-orange hedge, though not growing so tall, will generally protect them.

"It is much cheaper for the planter to grow his trees from seed than to buy them from a nursery, if a large number are to be planted. In the Munger plantation the cost of trees grown on the farm was fifty cents a thousand, while those from a nursery, with freight, cost about four dollars a thousand. The cost of establishing the Yaggy plantation with home-grown trees, including cutting back and two-years' tillage, was eleven dollars and seventy cents an acre; the cost of establishing the Farlington forest by contract, including the same amount of tillage, but no cutting back, was thirty dollars an acre.

"The proper spacing used in planting is from four by four to four by six feet. The catalpa-planter who sets his trees thinly upon the ground will find them growing with spreading tops in spite of his most careful efforts to prevent it. The most important advantage of close planting for the catalpa is that it kills the lateral branches while young. If the lateral branches die before becoming more than one half inch in diameter, they are easily pushed off by the tree, and do no damage; but if they reach a larger size than this, as they are sure to do in thin planting, they cling to the tree for years, even after they die.

"The development of large side branches unfits the catalpa for practical use. While the stand may become so dense as finally to shade them out, they cling with such persistence to the growing trunk that it cannot cast them off. New wood is deposited around the dead branches, but does not unite with them. The holes thus formed lead straight into the heart of the tree, and the angle of the branches is just right to conduct water and germs of decay into the trunk. When the branch is finally released it leaves a great hole leading to the decayed heart of the tree. The tree thus ruined breaks down in time—a complete loss.

"Cutting back the young trees after two or three seasons, so as to develop a single sprout from the stump, greatly hastens height growth and prevents low side branches.

"With close planting and cutting back two years afterward, thinning will become necessary within eight or ten years from the time of planting. Some of the trees will be large enough for fence-posts, and if the work is judiciously done, good returns may be had from this first cutting.

"When the first growth is bushy and undesirable, a better growth can usually be secured by cutting the stand clean and reproducing it by sprouts.

"A clean-cut stand should be protected by occasional strips of timber left uncut for the protection of the succeeding crop of sprouts. This is especially necessary on the prairies where heavy winds prevail, for the young sprouts are very tender and easily broken off during the first year or two of their growth. The protective strips are best run east and west, as the most damaging winds are from the south.

"The best growth of catalpa is not obtained in pure plantations. This statement is contrary to general practice and belief, for almost all catalpa-plantations throughout the country are pure planted. The advantage of a suitable associate tree is that by shading the ground it will keep out weeds and grasses and kill off the lateral branches of the catalpa, thus giving the tree a straight, clean bole to the height of from eighteen to twenty feet. The best trees for planting with catalpa in the Middle West are osage orange and Russian mulberry.

"Growers need not hesitate to force the growth of their catalpas, as the wood is apparently just as good when grown fast as slow. The rate of growth makes no difference in the sale of the product."

Dr. von Schrenk finds that catalpa wood if cut from the living tree is one of the most durable timbers known. No fungus has yet been found that will grow in the dead wood. The wood of living trees is attacked by two fungi—one causing a soft rot, the other a brown rot.—Department of Agriculture.

TEST THE SEEDS

At this time of the year seed should be procured and prepared for the coming season. If put off until a later time, because of the delays that arise during the rush of spring shipments and spring work, the seed may not be on hand at the proper time, the seeding will be late, and smaller yields will be the result. This is the proper time to investigate the vitality and germinating power of seeds. This should always be done unless there is no question about the matter, and there usually is; and the cost of a test is but a trifle. Purchased seed should always be tested. Seed may have been put away in storage in proper condition, but it may have absorbed moisture from the air, the ventilation may have been poor, and the seed may have been injured by molding or heating or freezing. If such seed is used, and the usual amount is sown, the stand is poor and irregular, and a low yield is the result.

The weather during the fall of 1902 was hard on the vitality of seeds, and even where the best of care has been taken, the per cent of germination may be low. Where the seed has been neglected the per cent of germination may fall below fifty. The rainfall was frequent and heavy, and much of the seed was soaked in the field. Freezes do much damage while seed is in such condition. Much poor seed will be sent out the coming season, and it is very necessary that seed be tested before planting.

A simple germinating apparatus can be made from two ordinary plates and a piece of flannel cloth. Fold the cloth, and lay it in one plate, placing the seeds between folds of the cloth, which should be moist, but not dripping. Cover the whole with another plate inverted, and stand in a warm place. If the test is made during cold weather, care must be taken to stand the plates where the temperature will not fall much below fifty degrees Fahrenheit at night, and will be about sixty-five or seventy degrees during the daytime.

The seeds that have sprouted should be removed every day, and the number recorded. When the test is completed, the number of seeds sprouted can be compared with the number put in the test, and the percentage of germination determined. Cereals and alfalfa should be tested for about ten days, while grass-seeds need from fourteen to thirty days.—Oklahoma Experiment Station.

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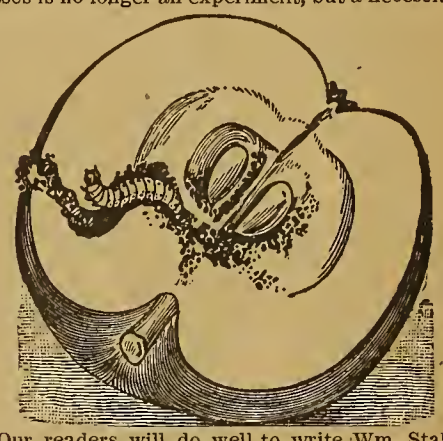

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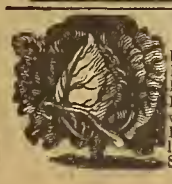

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Live Stock and Dairy

THE FARM-HORSE

WEIGHT is not everything in a farm-horse, though many people give one the impression that they so regard it. Everything else being equal, the horse that has the weight will stand up best against the collar; but the spirit has much to do with the staying-qualities of an animal, and the character of the bone and muscle is also a big factor. Throughout the country we see the results of valuing a sire by the number of pounds of flesh he carries. His get is found all over the country, and a lifeless lot they are. It seemed to many a matter of arithmetic only. Their mares weighed eleven hundred pounds, the sire weighed nineteen hundred or twenty-one hundred, and that meant a fifteen hundred or sixteen hundred pound horse with the frame of the sire and the spirit and nerve-force of the dam. But it did not work out that way. The colt's head proved to be large enough for any horse, and hung heavily on an ugly neck, while the legs were loose-jointed affairs that wabbled about promiscuously. I do not overdraw the picture. Beefy sires and small dams have given us a woefully large number of horses that reflect no credit upon the farmers of this country. They are brought to maturity without blemishes with the greatest difficulty, because they are loose-jointed, soft, awkward and without sufficient spirit to take care of themselves and keep out of danger. They have weight to put against the collar, but they have little else to commend them.

The serviceable farm-horse must have intelligence, and that is largely absent from these crosses of heavy, cold-blooded sires upon the average farm-mare of no particular breeding. If a horse does not have brains it is a poor animal to have in one's company day after day. It must have inherited stamina and endurance, and have plenty of ambition, if it fills its place well on a farm. There is an idea that a dull horse is the safest, and so it may be in the hands of a driver who is unfit to handle an animal; but a thick-brained horse when badly frightened is far more dangerous than a spirited one that has learned to trust its driver.

A draft-animal needs weight to continue to move a heavy load with ease, but the horse that has less weight and more nerve-force will do about as much work and last much longer. In the cultivation of crops we especially need horses that will take the gait they are told to take, walk trimly, turn at the ends of rows without undue tramping of plants, and stand the midsummer heat.

There is a place for heavy horses, but they are those bred from mares of good size and spirit, and sired by horses that have more than mere weight to commend them. The horse that cannot carry its weight well, pick up its feet neatly and learn to take an intelligent interest in its work is out of place on the farm. It is a burden to work a sluggish, awkward animal. Nerve-force, endurance and intelligence in a farm-team are worth far more to the owner than mere weight.

DAVID.

THE INFLUENCE OF THE MILKER

A cow's udder is essentially a tank, or four tank-like receptacles, for holding the milk as it is slowly evolved by the mysterious milk-producing processes. When the udder is in normal condition these tanks have intake pipes—the milk-veins—and automatically closing spigots for the outflow, which man has named teats. It is with these last-named points of the milk-machines that dairymen often suffer large losses.

It matters not how great the expense and pains the dairyman has taken in the breeding, rearing and feeding of his dairy-animals, unless the milking is correctly performed he will not realize the returns that his former care has earned.

The milk as it collects in the udder has the same properties as after it has been drawn. The particles of butter-fat tend to rise to the top just as they do in a man-made milk-vat, which accounts for the richness of the strippings in butter-fat. The last few ounces of strippings will sometimes test as high as fifty per cent of butter-fat. It will often be found that the careless, unthinking milker leaves one or more ounces of this valuable strippings at the end of each milking, which if continued for even a short time will seriously interfere with the productiveness of the animal for the remainder of the season at least. With heifers just being educated to a highly productive milk habit—for abnormally great milk-production is to a considerable extent continued by force of habit—the utmost care in the manner of milking is highly essential.

In the first place, the animal must feel that the milker is her friend. This understanding is quickly gained by the cow, and to retain her confidence she must receive uniformly kind treatment in voice and usage even when accident or disease renders her teats or udder tender or sore, and she in consequence becomes vicious for the time being. The model milker will at such times control the cow by means of some tackle or fastenings instead of trying to subdue her by beating or other brutal means often resorted to by unfit milkers.

Cows that have contracted the habit of withholding a portion of their milk can frequently be recovered to their former usefulness by supplying skilled, intelligent milkers who have learned to carefully manipulate and massage the udders at that stage of the milking process when the cow has become accustomed to withhold the remainder of her milk.

The practice of eternally stripping by mere drops when the milk has been nearly all withdrawn is a mistaken practice, and will often cause free-milking cows to contract the stripping habit. The skilful milker will continue to withdraw the milk rapidly until the udder is empty, unless the cow has already contracted the habit of withholding it.

Kind usage, good humor, smooth, rapid milking and a cheery whistle are equally as effective for filling the milk-pail as are good breeding and a well-balanced ration. B. F. W. THORPE.

A MODEL DAIRY-FARM

HOW FORTY COWS WERE KEPT ON EIGHTY ACRES OF LAND

While visiting in the west of England I became interested in a dairy-farm and how forty cows could be kept on eighty acres of land. The pastures were divided into eight fields of about ten acres each. The cows were not turned out to pasture in the spring until the sod was hard enough to prevent them breaking through it. They were then turned into what we will call pasture No. 1, and kept there until they had eaten the grass quite close. Then they were turned into pasture No. 2, and so on until No. 4 had been fed over. While the cows were feeding in pasture No. 2, No. 1 was being dressed over by having the droppings broken up and spread. Then it was brush-dragged, or combed, as they called it. When pasture No. 4 had been fed over, the cows were turned into pasture No. 1 again. Each field was dressed over after the cows were through with it. The other four fields were kept to produce hay to feed the cows through the winter. About three tons to the acre was the yield. The four fields that were fed over one season were kept for hay the next, and vice versa.

The end of the dwelling-house made one side of the barn-yard, the cow-barns formed an ell, which inclosed two sides, and a stone wall formed the remaining side. On the inside of the stone wall was a long watering-trough, which was kept full of clean water for the cows all the time. The barn-yard was paved, sloping to the center, so that none of the manure was wasted. The liquid manure seeped into a large cistern, from which it was pumped into a watering-cart and sprinkled on the fields the same as the streets are sprinkled. The manure was hauled out, and spread evenly over the fields that were to be used for the production of hay the next season.

The stanchions for the cows were round poles with a ring around them, and the ring slid up and down. The chain

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Live Stock and Dairy

around the cow's neck was fastened to the ring with a snap. This gave the cow plenty of room to swing her head and lick herself. Each cow had its ration, and was not molested by the boss cow. In summer the cows were tied to the stanchions to be milked, and fed a little salt. In winter they were kept housed, and were allowed to go out only to be watered, which was done inside the barn-yard. Rough or loud talking to the cows while they were being milked was not permitted.

The cheese-room was in that part of the house that bounded the cow-yard. A tube running into the cheese-vat was put through the side of the house. A funnel was inserted into the tube on the outside. It was only a few steps from the cows to the funnel—no going into the house with dirty shoes. The funnel and tube were taken out and cleaned every day. The vat was large enough to hold the evening and morning milk. The cheese was made daily.

The twelve pig-pens were located back of the horse-barn, quite a distance from the house. One half of each pen was under cover, and the floors were all paved. Each pen contained six pigs. An underground pipe led from the cheese-vat to the pig-pens and into a cistern. By turning a tap at the vat, the whey ran into the cistern. The hot water that cleaned the vat also passed through this pipe, cleaning them both at the same time.

A large garden was cultivated and kept rich with the manure from the pens. In this garden they raised the green stuff to feed the young pigs to keep them healthy. They had nothing to do but to eat and lie down and make fat hogs of themselves as fast as they could. Every thirty days six fat hogs were sold, and six lean ones were bought to replace them, so that the life of the pigs in the pens was one year. A month or two before they were sold they were fed corn-meal, barley-meal, middlings, bran and ground oats. No hard feed was fed to them. The whole idea was to stuff them, fatten them as quickly as possible, and turn them into money.

The renter told me they paid fifteen dollars cash an acre for the whole eighty acres. They raised their own cows, and fattened and sold the calves for veal. As soon as a cow became unprofitable for the dairy she was tied up, fattened as quickly as possible, and sold to the butcher.

Two men did the work, except during haying-time. Everything on the farm was arranged for convenience and to save steps. Everything was clean and in good order. The renter also told me he was doing well, and was saving some money.

Cheese was worth about twelve cents a pound at wholesale, and fat hogs about ten dollars a hundredweight. S. GRAY.

PRINCESS MAY
Guernsey cow; four years old. First at St. Louis Fair

COW CATCHERS

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Assuming that the calf is of the feminine gender, it should be a predestined animal, and all the incidents of its life should converge to the perfect cow to be.

Early in the life of the calf—in fact, before it is born—should be laid the foundation of robust health. Without this the cow is likely to be a failure, or at least her possible usefulness modified to a great extent by the lack of perfect health.

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The heifer should not only be abundantly fed, but her food should be palatable, sound, nutritious and easy of assimilation. She should have salt, water, sunshine and moderate exercise. Stuffing the cow "when she can pay for her feed" is no redemption for the underfeeding of her as a heifer. If the new cow carries no reserve energy from her heiferhood she will most surely be a disappointment to her owner when she reaches maturity.

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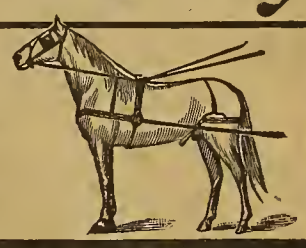

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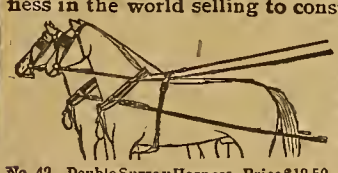

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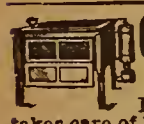

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Poultry-Raising

By P. H. JACOBS

A VIEW OF THE POULTRY-PLANT AT THE MARYLAND AGRICULTURAL COLLEGE

"BAGGY CROP"

"BAGGY CROP" is caused by distension, due to full packing with food, weakening the muscles. Overfeeding leads to indigestion, and the matter in the crop is not forwarded as fast as it should be, becoming sour. Soft food, too much grass, lack of grit, etc., are causes. It does not injure the birds, but it is unsightly. No medicines are necessary. The remedy is to feed lightly, giving plenty of grit, and begin by fasting the birds for forty-eight hours, then allowing lean meat once a day for a week before giving the regular variety.

COOKED FOOD

An excellent method of feeding is to boil small potatoes, and mix them in equal proportion with good grain. This makes a suitable morning feed, but as it is somewhat fattening it should not be fed too liberally. There are several other mixtures that are good. A very good morning feed can be made by cooking grains—oats, cracked corn, wheat or barley—and giving it to the fowls warm. It is quite soft when so prepared, and is greatly liked by the fowls. Meat should be given to the fowls every other morning during winter, and if there is any difficulty in obtaining scraps of meat from the house or from the butcher's, animal meal can be used. This is usually composed of the refuse from the rendering-establishments, and is excellent.

THE SITTING HENS

The period of incubation of the eggs of ordinary fowls extends up to about twenty-one days. Under some circumstances this period is lessened a day or two; at other times it extends two, three or four days over the usual time. As the time approaches for the chickens to make their appearance the hen is more solicitous than ever about her nest, and it will be well to do all the necessary work connected with the nest during the time the hen is off for food and relaxation. As a hen has to be in more or less confinement for so long a period, it is essential for the success of the hatching that suitable hens be obtained for this arduous task. The best hens for the purpose are the Brahma, Cochin, Langshan, Wyandotte and Plymouth Rock, or any hen with a good percentage of the blood of these breeds. These birds are kindly, and have the maternal instinct highly developed. They are well feathered besides, and consequently give good, warm cover to the eggs, and to the chickens when they arrive, being also quieter in their habits than most fowls, not running the chickens too severely before the youngsters have strength to follow them.

SPRING HATCHING OF CHICKS

Laying hens should always be kept in moderate condition only, and if they are found to be adding on flesh too rapidly their diet should at once be cut down until they are reduced again. Cold winds are largely responsible for the poor condition of the eggs laid. The best thing to do is to give the fowls good houses or other shelters, so that during such periods they will be exposed as little as possible. When the weather is cold and damp the fowls do not seem to thrive so well, and they mope about with wings down, looking miserable. Weak parents are also responsible for the large amount of unhatchable eggs, and this is one of the gravest and most serious mistakes that can be made with regard to the management of breeding-stock, for not only are most of the eggs useless for hatching, but even those that do hatch contain chickens that are not worth the trouble of feeding. Many of the undersized, stunted chickens are the direct result of worthless parents. Strong chicks are more easily cared for than the weaker ones. The choice of eggs for sitting is regarded as a matter of importance, and the freshest obtainable are invariably used. The best breeders seldom use eggs older than eight days. Care should be taken that the eggs given to one hen are of the same age. The eggs when collected should be kept at a very even temperature until given to the hen, and should be turned daily. The object of this is to prevent the yolk, which is lighter than the white, from adhering to the top of the shell. The eggs selected should be of average size, those that are above medium being rejected, as they often contain double yolks. Eggs received from a distance, and consequently exposed to more or less shaking, should be allowed to stand a day or two before being put under the hen. Great care should also be taken that the eggs are perfectly clean. Care in selecting eggs will give more and stronger chicks than when no attention is given to the matter of selection.

INQUIRIES ANSWERED

LAMENESS.—D. T. A., Richland, Oreg., has a flock, and "the members become lame. They have the run of the farm." It is probable that the roosts are too high, the daily alighting therefrom causing the lameness.

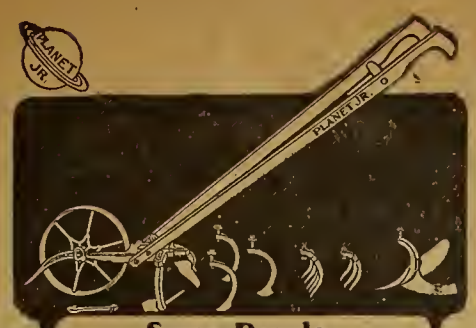
MINORCAS AND BROWN EGGS.—Mrs. N. P., King, N. C., "has White Minorcas, but her pullets are laying brown eggs." Such pullets usually lay eggs with white shells, and it is only occasionally that the brown egg is seen. It is possible that the pullets are not strictly pure bred.

DUCKS.—Mrs. A. P., Milan, N. H., asks "if ducks eats polliwogs, as do geese, and do they kill the polliwogs unassisted. Also, how to kill weasels in her henhouse." Adult ducks will kill and eat toads, small frogs, etc. The weasels must be trapped or kept out with wire mesh.

CHICKENS DROOPY.—A. P., Skamokawa, Wash., states that he "has two hundred chickens. They have good appetites, but are mopy, and live about two or three weeks. Some have large livers." As no details of management are given, the cause may be excessive feeding, lice or lack of warmth.

AMOUNT OF FOOD.—R. L. D., New Sharon, relates that "his chickens are fed three times a day with corn and twice with screenings, and wishes to know how much to give at one meal." He is feeding too often, twice a day being sufficient. They should also be given a greater variety. As no two fowls eat the same amount, the only rule is to give as much as the flock will eat up clean at each meal. Be careful not to overfeed by frequent feeding.

CONCRETE FOUNDATION.—A. H. D., New Harmony, Ohio, desires to know "how to prepare cement for foundation of poultry-house." Use one part of good Portland cement and three parts of sharp sand. Mix dry very carefully, and add water, mixing a small quantity at a time, as it sets quickly. Old bricks, stones, gravel, etc., may be used with it. Pound it down well when laying it in the frames if it is to be used by pouring in frames for use as walls. It is best not to make the mixture too wet.



Some People

do not see the necessity for two wheels on a hoe. They like a Single Wheel Hoe because it is a trifle lighter than the Double, and it does not cost quite so much. To meet this demand we make the

No. 16 "Planet Jr." Single Wheel Hoe Cultivator, etc.

It is our latest 1903 model of this tool and is a decided improvement on anything of its kind we have heretofore offered. It is provided with two hoes for working middles or both sides at once, throwing dirt to or from the rows; three cultivator teeth for working middles; two rakes for pulverizing and smoothing, and a plow which is also an excellent furrow opener. Handles are adjustable to fit short

Planet Jr.

or tall workmen or children. All attachments are quickly and easily changed. It will work any garden crop planted in rows and one person can do more and better work with it than six men can do with hand hoes. Should you need a horse tool you will find the **No. 8 "Planet Jr." Horse Hoe, etc.,** shown below to be the best in existence.

These are but two of our fifty seeding and cultivating implements, including plain and combined Seed Sowers, Wheel Hoes, Hand Cultivators, Walking Cultivators, One and Two-Horse Riding Cultivators, Special Sugar Beet Tools, etc. Our new 1903 catalogue is educating. It contains over 100 illustrations with full descriptions and prices. It costs you nothing and will make you money. Write for it.

S. L. ALLEN & CO., Box 1107-F Philadelphia, Pa.

A CRUSADE against grain-wasting inaugurated by The Aultman & Taylor Machinery Co.

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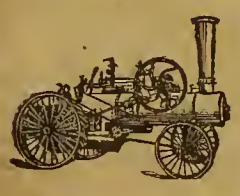

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The Aultman & Taylor Machinery Co. MANSFIELD, OHIO, for it, and mention this paper.

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and family almanac for 1903. Over 200 large pages of best book paper, with fine colored plates true to life. Tells how to raise chickens profitably, their care, diseases and remedies. Diagrams with full descriptions of Poultry houses. All about **INCUBATORS, BROODERS, Thoroughbred FOWLS,** with lowest prices. You cannot afford to be without it. Only 15 cts.

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You Can Succeed

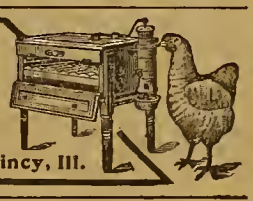
in the poultry business just as we have if you follow the same plans. We tell all about what we have done and how we did it, in our new year book,

"Poultry for Profit."

Gives cuts of every variety of fowl, together with prices for singles, pairs, trios and pens, and eggs for hatching, in season. Cuts and plans for poultry houses. It cost too much money and time to be given away, but is sent for 10 cents.

THE J. W. MILLER CO., Box 162 Freeport, Ill.

$12.80 For 200 Egg INCUBATOR



Perfect in construction and action. Hatches every fertile egg. Write for catalog to-day.

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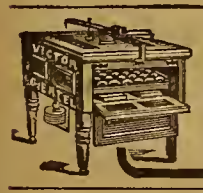

VICTOR INCUBATORS

Hatch every fertile egg. Simplest, most durable, cheapest first-class hatcher. Money back if not positively as represented. *We pay freight.* Circular free; catalogue 6c.

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BUILD YOUR OWN INCUBATOR. we sell complete illustrated plans by which a 200 EGG HOT WATER INCUBATOR can be built for about $8. We furnish Lamps, Tanks, Regulators, etc., at cost. Big money building and selling them. Write to-day for particulars and FREE circular "How to Make and Save Money with an Incubator."

Channon, Snow & Co., Dept. 118 Quincy, Ill.

GREAT POULTRY BOOK

My 1903 catalogue. Elegant in illustration, full of practical hints, describes 56 breeds of prize winners. Low prices for birds and eggs. Book postpaid, 10 cents. Calendar for 1903 on cover.

B. H. GREIDER, RHEEMS, PA.

$20 A WEEK straight salary and expenses to men with rig to introduce our Poultry Mixture in country; year's contract; weekly pay. Address, with stamp, Monarch Mfg. Co., Box 1113, Springfield, Ill.

3 FINE STOCK FARMS in Virginia for sale by professional man: 200 acres; on railroad; Good Buildings. E. W. Armistead, Wolf Trap, Virginia.

WE PAY $25 A WEEK AND EXPENSES to men with rigs to introduce our Poultry Compound. JAVELLE MFG. CO., Dept. 58, Parsons, Kans.

The Grange

By MRS. MARY E. LEE

THE HOME BEAUTIFUL

Could we but be brought to realize how vastly more beautiful and attractive our homes might be made without any expenditure of money, our farm homes would become bowers of beauty. Native trees, hardy shrubs and vines, planted generously and in artistic groupings, give an air of refinement and distinction to the humblest home. Indeed, one forgets the humble surroundings in the contemplation of a beautiful grove of trees. Not a year should go by but a tree or shrub or vine is added to round out and complete the picture. Your farm may be small, your purse light, but a little time and labor will bring to you that which the gold of Midas could not buy. And the years will but enhance the beauty you have had the taste to begin. There is no excuse for bleak, unsheltered homes. Trees carefully transplanted grow with marvelous rapidity. The native vines will cling lovingly to the walls, shielding you from summer's sun and winter's storm. Moreover, your home will grow in financial value. There is incomparable dignity in a well-established grove of trees, and moneyed men will forego many advantages to secure such a site. Native trees cost nothing, and there is something fitting about a tree indigenous to a place that those of foreign growth never attain. Of one thing you may be sure—they are more apt to grow thrifty and symmetrical than the most costly nursery species. It is too late to plant now, but it is the best time of the year to lay plans for future work.

HOME OF JUDGE HENRY M. HUGGINS

"ALWAYS A GRANGER"

A few days ago, in conversation with the Master of a grange we had just organized, he said, "Why, I've always been a Granger, but didn't know it." That one pointed remark aptly answers the question so often asked by grange-workers—why men and women whose sympathies are in line with ours do not unite with us. This man was progressive, anxious to secure for his family and friends the very best advantages possible, but felt powerless alone. In the grange he found others desired the same things he did, and discovered the chain of sympathy that binds men together the world over.

"But I have explained the objects of the grange many times," the worker protests. True. So have I, and I often find myself indulging in stock phrases and stereotyped expressions that convey but little to my hearers. First find the ambition of the one you seek to convince, and if the grange will aid him show him so in terms he will appreciate. The hearts of the best people on our farms are with us did they but know the true meaning of the grange, and we owe it to them and to ourselves to secure their allegiance. There are thousands of excellent men and women who have "always been Grangers" who are out of the order because they have no accurate knowledge of the grange. To all such who desire better homes, a higher mode of life and better things not only for agriculture, but for humanity, who are zealous to "pull their weight," we would open our doors, confident that they would find a home.

TRUSTS

Congress has determined to abandon its policy of "masterly inactivity" anent trusts. Senator Hoar and Congressman Littlefield have drafted bills seeking to eliminate, so far as legislative action can, the evils of the trust system. That their recommendations will be conservative and have for their aim the good of the greatest number we have full confidence. In the meantime the legislative hopper is being deluged with measures that will probably never leave the committee-room. While many are offered in good faith, many others are to "fix" the people of the district represented. We will do well to ask these gentlemen, "Why so tardy?" The real issue is not the reputation of a few men who in ten years will be forgotten, but the wise solution of a momentous problem. Let us not permit our minds to be distracted from the main point by any extraneous matter. The trust, as well as the well-founded protest against it, is the logical outcome of our institutions and of our characteristic indifferent neglect to lock the door before the horse is stolen. We are suffering acutely from the exactions of the great corporations. Let us, however, thrust aside personal antagonisms so far as possible, that our recommendations may be wise but decisive, progressive but not ill-considered, conservative but not antiquated. Above all, let us back up our demands by aggressive action.

CULTIVATE THE OBSERVING FACULTY

It is told of one of the great conjurers that often, in passing a store window with his son, they would vie with one another in naming the number of articles displayed therein. That such exercise had many advantages is obvious. The eye and mind were trained to visual and mental alertness, and the energy of a given moment was intensified, thereby greatly increasing the power of the individual. The power to concentrate the mind at will upon any subject (a priceless possession) was strengthened. In such an exercise the faculty of selection and rejection was constantly exercised.

Lecturers might often introduce exercises of a similar kind, both to entertain and instruct. Place a number of easily seen and recognized objects on a table behind a screen. Hastily remove the screen for say ten seconds, then replace, and ask each to write on a slip of paper the objects he saw. Give each member a number, which he writes on his slip. If desirable, a slip with a number on it may be handed to each. Then read the number and the articles mentioned. Again add to or take from the objects on the table, and alter their relative positions, and repeat the process. Even the most nervous, who "loses his head" at critical moments, will gain serenity and presence of mind. That the novel exercise will be continued when alone by most of the members is quite certain, and is the aim in view. Were we more observant, the myriads of secrets with which Nature encompasses us would most surely be discovered.

Maine Patrons have more than six hundred thousand dollars invested in grange halls.

KNOWS NO DISTINCTION

Rich and Poor Alike Suffer From Catarrh in This Climate

All observant physicians have noticed the enormous increase in catarrhal diseases in recent years, and the most liberal and enlightened have cheerfully given their approval to the new internal remedy, Stuart's Catarrh Tablets, as the most successful, and by far the safest, remedy for catarrh yet produced.

One well-known catarrh specialist, as soon as he had made a thorough test of this preparation, discarded inhalers, washes and sprays, and now depends entirely upon Stuart's Catarrh Tablets in treating catarrh, whether in the head, throat or stomach.

Dr. Risdell says, "In patients who had lost the sense of smell entirely, and even where the hearing has begun to be affected from catarrh, I have had fine results after only a few weeks' use of Stuart's Catarrh Tablets. I can only explain their action on the theory that the cleansing and antiseptic properties of the tablets destroy the catarrhal germs wherever found, because I have found the tablets equally valuable in catarrh of the throat and stomach as in nasal catarrh."

Dr. Estabrook says, "Stuart's Catarrh Tablets are especially useful in nasal catarrh and catarrh of the throat, clearing the membranes of mucus and speedily overcoming the hawking, coughing and expectorating."

Any sufferer from catarrh will find Stuart's Catarrh Tablets will give immediate relief, and being in tablet form and pleasant to the taste, are convenient and always ready for use, as they can be carried in the pocket and used at any time, as they contain no poisonous drugs, but only the cleansing, antiseptic properties of Eucalyptus bark, blood root and Hydrastin.

All druggists sell the tablets at 50 cents for complete treatment.

Farm Wagon only $21.95

In order to introduce their Low Metal Wheels with Wide Tires, the Empire Manufacturing Company, Quincy, Ill., have placed upon the market a Farmer's Handy Wagon that is only 25 inches high, fitted with 24 and 30 inch wheels with 4-inch tire, and sold for only $21.95.

This wagon is made of the best material throughout, and really costs but a trifle more than a set of new wheels, and fully guaranteed for one year. Catalogue giving a full description will be mailed upon application by the Empire Manufacturing Co., Quincy, Ill., who also will furnish metal wheels at low prices made any size and width of tire to fit any axle.

TO SAVE FEED

is to make money. The **Quaker City Grinding Mill** is a sure feed saver. Some of its friends claim that it saves one-half. It makes **corn and cob meal,** and by the use of an extra hopper **mixes small grains with it at the same time.** It makes the best and finest of **corn meal** for table use.

It fits every requirement of the custom grinder. **BALL BEARINGS** make it the easiest runner. Made of best material throughout; they last indefinitely. Equipped with special burrs for special work. **Sacking attachment** extra when ordered. **All mills sent on trial and fully guaranteed.** Write at once for 36th Annual Catalogue Mailed **FREE.**

We handle all standard makes of farm implements. Get our prices on what you want.

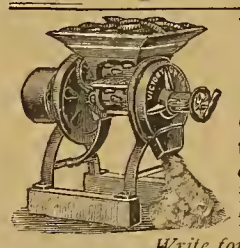
A. W. Straub & Co., 3737 Filbert St., Philadelphia, Pa. The A. W. Straub Co., Canal and Randolph Sts., Chicago.

CASH FOR YOUR

farm, home, business, or other property (no matter where located or how large or small) may be obtained through me. Send description, state price, and get full particulars free. Est'd 1896. Highest references. Offices in 14 cities, from Boston to San Francisco.

W. M. OSTRANDER

1717 N. A. Building, Philadelphia



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Grind corn, cobs and all together, and all kinds of small grain. Made in four sizes—for one, four, six and ten H. P.

Write for catalogue.

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In plain sight of the operator.

MATTHEWS—Improved for 1903 NEW UNIVERSAL

Hand Seeders and Cultivators.

Used by the most successful gardeners. They do perfect work. Save time and money. Open furrow, drop seed, cover any desired depth, also marks next row. Latest and best Cultivating Attachments. Best material throughout. 1903 catalog describing our full line, free.

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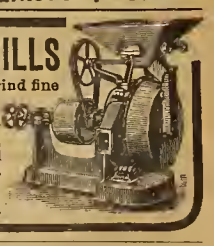

Run for years without repairs. Grind fine or coarse as desired. Simplest, strongest, fastest and most reliable. Write for our descriptive booklet, FREE. Manufacturers of Richmond Disk Grinders, Cob Crushers, etc.

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All kinds, Single and Double Barrel Hammerless and Hammer Styles from . . . **$10.00 up**

All described in handsome catalogue, mailed free to any address.

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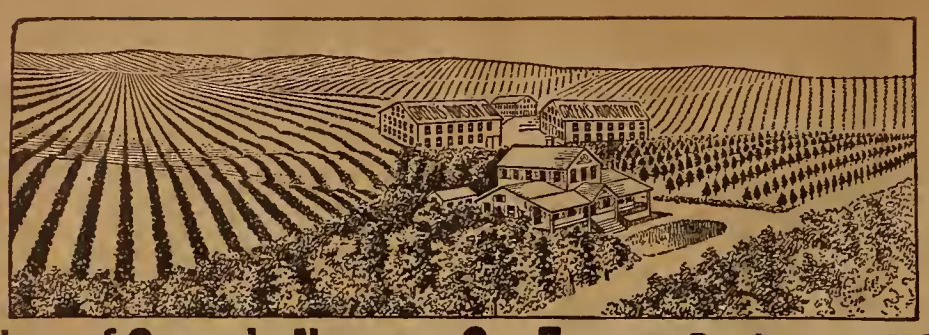

View of Green's Nursery Co. Farms, Rochester, N.Y.

Home of the Thanksgiving Prune, Red Cross Currant, Corsican Strawberry, Rathbun Blackberry, Wilder Early Pear, Worden Seckel Pear, York State Prune, American Blush Apple, and other new and rare varieties of fruit. Established 1876. We offer for sale 750,000 apple, cherry, peach and other orchard trees, and millions of small fruit plants, grape vines, roses, etc. Our new catalogue is double the ordinary size. We give one new Thanksgiving Prune tree (worth $1.50) free with each early order of $5.00. Our specialties are: Apple, 16c.; Peach, 12c.; Cherry, 15c.; Small Fruit Plants, Roses, Vines. 100-page catalogue free. 2 new Red Cross Currants mailed for 10c. Secrets of Fruit Growing, 150 photos, 10c. Copy Green's Fruit Grower free. Send for our surplus list. Good salary paid for work at home. **GREEN'S NURSERY CO., Rochester, N. Y.**

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Is the title of **Our New Catalogue for 1903**—the most superb and instructive horticultural publication of the day—**190 pages—700 engravings—8 superb colored plates of vegetables and flowers.**

To give this Catalogue the largest possible distribution, we make the following liberal offer:

Every Empty Envelope

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To every one who will state where this advertisement was seen, and who incloses **10 Cents** (in stamps), we will mail the Catalogue, and also send free of charge, our famous **50-Cent "Henderson" Collection** of seeds, containing one packet each of *Sweet Peas, Large Mixed Hybrids; Pansies, Giant Fancy Mixed; Asters, Giant Victoria Mixed; Big Boston Lettuce; Early Ruby Tomato and Cardinal Radish,* **in a coupon envelope**, which, when emptied and returned, will be **accepted as a 25-cent cash payment** on any order of goods selected from Catalogue to the amount of $1.00 and upward.

PETER HENDERSON & CO.,

35 & 37 Cortlandt Street, New York.

Spark's Earliana

Most profitable Tomato ever grown. One trucker cleared $6000. Many others in proportion. For history of this and other

MONEY MAKING NOVELTIES

See our **Garden and Farm Manual** for 1903. Most complete and practical catalogue published. Tells all about the best Seeds, Plants, Implements, Poultry Supplies, etc. Sent free to Seed buyers—write now.

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CORN ready for the market 60 days after planting, is one of the many wonders you read about in **HOLMES' 1903 CATALOGUE OF TESTED SEEDS.** Contains many other new and profitable flower and vegetable varieties. Honestly pictured—truthfully described. A book that's different from ordinary seed books. A book well worth writing for. We send it **FREE**

HOLMES SEED CO., Harrisburg, Pa.

LIVINGSTON'S TRUE BLUE SEEDS

WHAT 10 CENTS WILL DO

Send us a silver dime. We then mail you 1 pkt. each Livingston's New Magnus Tomato, Livingston's Ideal Cabbage, Livingston's Emerald Cucumber, Livingston's Tip Top Muskmelon and New Wonderful Lettuce, and our 104-page Seed Annual. Send us back the empty bags and we will accept them at 5 cents each on any order amounting to 50 cents or over.

The Livingston Seed Co., Box 120, Columbus, Ohio

BURPEE'S Largest Mail-Order Seed House in the World. In buying BURPEE'S SEEDS direct by mail you get your money's worth in the **Best Seeds that Grow**—and you have your choice of **Rare Novelties for 1903**, which cannot be had elsewhere. **Write to-day** (a postal card will do) for our **complete catalogue**—**FREE** to all who intend to purchase seeds. **W. ATLEE BURPEE & CO., Philadelphia.**

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Reliable Information

about orange growing, fruit culture, vegetable gardening, grain growing, poultry, climate, soil, water, lands, power, markets, manufacturing facilities, wages, etc.

Send 50c. for illustrated book "San Francisco and Thereabout." All other printed matter and information sent free upon request. Low railroad rates February, March and April.

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450,000 TREES

200 varieties. Also **Grapes, Small Fruits etc.** Best rooted stock. Genuine, cheap. 2 sample currants mailed for 10c. Desc. price list free. **LEWIS ROESCH, Fredonia, N. Y.**

TREE-BUYING CLUBS. Neighbors save freights and get good price discounts by joining. Great variety, standard, thrifty stock, fruit and ornamental. State inspected—no disease. Catalogue free. GEO. A. SWEET NURSERY CO., Box 1863, Dansville, New York

STARK TREES best by Test—78 Years LARGEST Nursery. FRUIT BOOK free. We PAY CASH WANT MORE SALESMEN Weekly STARK BROS, Louisiana, Mo.; Dansville, N. Y.; Etc

GOOD SEEDS CHEAP

Best in the world

From 1c. a p'k'g, & up. A lot free with every order. Great Big Catalogue **FREE** to all. Picture of all varieties. Send for big catalogue

R.H.SHUMWAY ROCKFORD, ILL.

Superior Seed Corn.

Our stock is nowhere excelled. Specially grown for seed and carefully selected. Every good variety of Field and Ensilage Corn and Sweet Corn. We are headquarters for all kinds of sound, fresh, tested seeds. Get our annual seed catalogue. Mailed free. Write to-day.

FORD SEED CO., Dept. E, Ravenna, O.

Enormous Bearing as well as its tender, juicy, fine flavored fruit and hardy character, makes the **York Imperial** the favorite winter apple. Excellent keeper, shapely and fine colored. Should be on every list. **Jonathan** and 34 other choice varieties CATALOGUE FREE. HARRISON'S NURSERIES, Box 28, Berlin, Md.

Around the Fireside

THE STORM

To-night the Storm King is about,
His coherts, in their untamed rout,
  Rush wildly o'er the sea.
They shout with laughter o'er the wave,
They send the brave ship to its grave,
  Like demons, mad with glee.

They try their teeth on headland crag,
Like bullies, blustering, they brag
  Right noisily and loud.
They rush their armies o'er the strand,
They strike the forests of the land
  And fell their monarchs proud.

In windy combat fierce they howl,
In contest closing, cheek to jowl,
  As wild beast, raging, roars.
Against man's dwelling, hail and rain
Their bullets, smiting sash and pane
  And battering the doors.

The trees, disturbed from winter's sleep,
Their whip-like branches cutting deep,
  Strike these wind warriors dead.
And lo! the volleys of the wind
Grow fewer, and its wild ranks, thinned,
  All vanquished now, have fled.

—Jonquil.

LARGEST TREE IN THE WORLD

Just outside the General Grant National Park, the home of California's tree aristocracy, and barely within the boundaries of the United States forest reserve, there has been discovered the largest tree in the world, a venerable patriarch, whose dome-shaped, cone-tasseled crown soars to greater heights, and whose tangled roots creep over a greater area, than those of any of its contemporaries.

While on a recent surveying expedition in the Sierra Nevada mountains the attention of A. H. Koebig, a civil engineer of Los Angeles, was attracted to the great size of the tree, and he immediately sent word to Prof. John Muir, the noted scientist, expressing a desire that Mr. Muir would visit and officially measure it. Accompanied by Mr. Kelley, Mr. Muir set out in quest of the monarch, traveling three days on stage and horseback.

Mr. Muir describes the tree as being "well preserved, well balanced, noble and majestic," and gives the following dimensions, which he obtained by careful measurement: At one foot above the ground the circumference is one hundred and eight feet, at four feet above the ground ninety-eight feet, at six feet above the ground the girth is ninety-three feet. The tree is located in a nest of lesser giants of its own kind, and is three miles from Converse Basin, ten miles from General Grant National Park, and directly back of Millwood, a small town, in and about which is an immense lumber industry.

Twenty-seven years ago, when on one of his exploring jaunts, the famous mountaineer tramped through this identical forest, within a few miles of the tree just found, and was at that time much interested in the discovery of a titanic stump forty feet in diameter that stood all blackened, seared and worn by time and the elements, a mute but pathetically inscribed monument of primeval history. By using a microscope after chopping away the charred surface, Mr. Muir calculated that the actual life of the tree must have covered tens of centuries.

This newly discovered patriarch is of the species "Sequoia gigantea sempervirens," and belongs to a genus which flourished in the arctic regions, the interior of North America and in Europe centuries ago, but which was overwhelmed by the hardships of time, of change and elemental caprices until only two species survived to represent the genus, the "Sequoia gigantea" and the "Sequoia gigantea sempervirens," both of which took up their permanent abode in California. Until the recent discovery the General Grant tree in General Grant National Park, the General Sherman in Sequoia National Park and a few other titanic monarchs have reigned supreme over the world's primeval fastnesses.

The massive, fluted trunk, straight, strong and adamant as a granite pillar, is covered with rich, cinnamon-brown bark almost two feet thick, and is free of limbs to a height of one hundred and seventy-five feet, where it is estimated to be eleven feet in diameter. The branches, clothed in dense foliage, radiate symmetrically from every side of the trunk above this height, and form a thick, flat crown, while myriads of cones flutter like gay green tassels on its outer border.

Blossoms appear toward the end of winter, while the snow is yet deep, and swarm like thousands of bees on the ends of the branches. The pistillate flowers are about three eighths of an inch in length, and when the pollen is ready the tree bustles with energy, tossing the golden shower far and wide and high. There is no limit to the lives of these trees, and unless burned, undermined, blown down, or shattered by lightning, they live on indefinitely.

A curious characteristic, indigenous to the species, is that if their head is cut off by lightning, a new one will take its place, forming slowly, as with thoughtful deliberation, but eventually assuming the perfection of its predecessor.

Not until it reaches the age of fifteen hundred years does this species attain its prime and greatest beauty, and not till it passes its three thousandth year is it considered old. For the first two or three centuries of their existence their growth has been estimated as being only eight or ten inches a year.—Maxwell's Talisman.

CHINAMEN IN AMERICA

It is estimated that there are about one hundred thousand Chinamen in the United States, and that twenty thousand of them are in San Francisco. There is a Chinese colony in New York of considerable size, and there are small colonies in Philadelphia, Boston and Chicago. Though they do not belong to the educated classes, ninety-five per cent of them can read and write. A daily paper in the Chinese language is published in San Francisco, and another in New York.

Nearly all the Chinamen in the United States come from the single province of Kwong Tung, the most populous of the eighteen provinces of the Chinese empire. Its capital is Canton. Six counties of this province send out most of the emigrants to the United States. The inhabitants of this province have for centuries been more adventurous and fonder of traveling than the rest of their fellow-countrymen, and they are always ready to face danger if there is a good chance of profit.—Leslie's Monthly.

A COWSLIP LEGEND

The goddess Bertha, or Friga, of the Northern mythology on one occasion allured a child to follow her to a doorway in a rocky hill by a bunch of cowslips. When the key flower touched it, it opened, and the child passed with its supernatural guide from room to room of the enchanted castle rock, filled with vases containing great stores of gold and jewels, and covered over with cowslips. The child was allowed to help itself from the gold and jewels, but in coming away it had to replace the cowslip coverings, otherwise a black dog would rush out and worry her. Mythologists are accustomed to interpret this legend as a personification of the return of spring each year; and certainly no fairer key than the golden cowslip could be used by Nature to unlock the kingdom of heaven or earth and scatter her floral jewels over the earth.—Deeper Teachings of Plant Life.

KEEPING A SECRET

When Lord Wellington was commander of an army in India, a certain rich man offered him five hundred thousand dollars for some secret information on a very important question. Wellington looked thoughtful for a few minutes, as if he was weighing the temptation. But he was not. He was only considering the best way to answer his tempter. At length he said, "It appears that you can keep a secret, sir."

"Certainly," said the man, feeling sure that he had gained his point.

"So can I!" rejoined Wellington. "Good-morning, sir;" and the man went away with a crestfallen air.

Thus, you see, Wellington was proof against corruption. He rejected a bribe of half a million dollars! Wasn't that noble?—Men of To-morrow.

Sunday Reading

IN THE ORCHARD

Does Love remember yet the little house
We builded ere the Summer's sun was set,
To shelter him forever 'neath green boughs,
That he might dream and all the world forget—
The world beyond the orchard, where men fret,
Serving strange gods, remembering not Love's vows
Until the lonely after-days that rouse
Within their hearts the serpent of regret,
And turn to lead the gold upon their brows,
Where once of old Love's circling roses met?
Does Love remember yet the little house?
If we forget not, how should Love forget?

Does Love remember how the apples hung
From drooping boughs above us, dewy wet?
And how all golden in the dusk they swung
Among thick branches, that in leafy net
Held the first stars—those stars that shall not set
While Love remembers? How the blackbird sung,
As in a bower, when Love himself was young,
He sang for Aucassin and Nicolete,
As still he sings in Love's clear silver tongue
For hearts that worship in green places yet?
Remembers Love how bright the apples hung?
If we forget not, how should Love forget?

Does Love remember yet when boughs are bare
And moaning winds the naked branches fret?
When Winter tempest troubles all the air,
When ruin has the orchard overset?
When he must go through windy ways, and wet,
Nor find him shield nor shelter anywhere?
When, cold on brow, and white among his hair
December snow falls, where green leaves have met?
Does Love remember flower and fruit that were,
Or dream how Spring shall stir to blossom yet
The boughs that Winter winds have stricken bare?
If we remember, how should Love forget?

—Wilfred Wilson Gibson, in Cornhill.

AN IMPORTANT DISCOVERY MADE ON THE ROAD TO JERUSALEM

PROFESSOR MACALISTER, of the Palestine Exploration Society, has made a striking discovery on the road leading to Jerusalem, having uncovered an ancient city.

The excavations are near Telleljezari, on the Jaffa-Jerusalem road. The site has been identified as that of Gezer, the Canaanite city, the king and people of which were slain by Joshua. In his report, just made public, Professor MacAlister says:

"The excavation revealed four series of ancient walls and four layers of strata, which, putting aside the building of later date, mark the site of the city as occupied by four different sets of inhabitants.

"Two caves were dug. One apparently was used as a crematory. The other cave, which was bell-shaped, had been used as a cistern, but contained six skeletons. Five persons had been buried. The sixth was the upper half of a girl, who had been cut in two with a saw, indicating that she had been a human sacrifice. This idea was confirmed by the finding of the decapitated heads of two girls of about the same age at the mouth of the cave.

"The bones and pottery relics discovered make it possible to assign historical positions to the successive occupants of the city. The older race was slender and short, most of them only sixty-four inches in height. The skulls were thick and heavy, and much resembled those of the earliest occupants of Europe in the Neolithic age. They were certainly a pre-Semitic race.

"Later inhabitants were taller, the average height being sixty-six inches, while some of them reached seventy-one. They were also more strongly built, their faces were longer, their noses more prominent, and their skulls more circular. They probably belonged to the earliest wave of Semitic immigration.

"The pre-Semitic people, who burned their dead, were not acquainted with metal. Those who came later, and buried their dead, had good weapons of copper and bronze. This is remarkable, as cremation in western Europe came in with the Bronze era.

"Other relics proved that there was communication with the Bronze era, and still other relics proved that there was communication with Egypt, and one clay cylinder indicates there was direct or indirect trade with Babylon."—Exchange.

A LINE FENCE

A good lawyer learns many lessons in the school of human nature; and thus it was that Lawyer Hackett did not fear to purchase the tract of land which had been "lawed over" for years.

Some of the people wondered why he wanted to get hold of the property with such an incubus of uncertainty upon it. Others thought that perhaps he wanted some legal knitting work, and would pitch in red-hot to fight the line-fence question on his own hook.

That's what the owner of the adjoining land thought. So he braced himself for trouble when he saw Hackett coming across the fields one day.

Said Hackett, "What's your claim here, anyway, as to this fence?"

"I insist," replied his neighbor, "that your fence is over on my land two feet at one end, and one foot at least on the other end."

"Well," replied Hackett, "you go ahead just as quickly as you can and set your fence over. At the end where you say that I encroach on you two feet, set the fence on my land four feet. At the other end push it on my land two feet."

"But," insisted the neighbor, "that's twice what I claim."

"I don't care about that," said Hackett. "There's been fight enough over this land. I want you to take enough until you are perfectly satisfied, and then we can get along pleasantly. Go ahead and help yourself."

The man paused, abashed. He had been ready to commence the old struggle, tooth and nail, but this move of the new neighbor stunned him. Yet he wasn't to be outdone in generosity. He looked at Hackett.

"Squire," said he, "that fence ain't going to be moved an inch. I don't want the land. There wasn't nothing in the fight but the principle of the thing."—Christian Observer.

FOR THE SUNDAY-SCHOOL TEACHER

A finger's breadth is an inch.

A shekel of silver is equal to about sixty-four cents.

A shekel of gold was about nine dollars and sixty cents.

A piece of silver, or a penny, was about sixteen cents.

A farthing was about four cents.

A mite was less than a quarter of a cent.

A gerah was one cent.

An ephah, or bath, contained about eight gallons.

A hin was about one and one third gallons.

An omer was about six pints.

A day's journey was about twenty-three and one fifth miles.

A Sabbath day's journey was about an English mile.

A cubit was nearly twenty-two inches.

A hand's breadth is about three inches.

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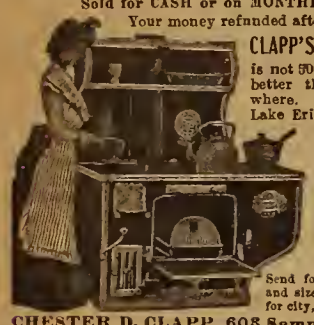
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The Housewife

THE SCIENCE OF ECONOMY

ECONOMY is a word that young people as a rule do not like the sound of, but if they would look it up in a standard dictionary they would find that it is not such a bad thing after all. It is often confounded with parsimony—"frugal to excess"—or with stinginess. To my thinking, economy means the management of one's affairs in such a way as to get the most possible good out of life. It is not confined to the wise spending of money, but includes the wise spending of one's time, health and strength. This perfect economy, with no mistakes and no lapses of memory or errors of judgment, is no more to be attained than is absolute perfection of character; but in the one case, as in the other, we can all try our best to live as near as possible to our high ideals.

All ages and conditions of people need to understand and practise economy in order to get the most good from their incomes. It is the housekeeper, however, and especially the working housekeeper, to whom an understanding of the subject is most necessary, for upon her depend the welfare and happiness of others.

The ability to be economical does not come by instinct. It has to be learned by practice and experience, though the little girl who is careful of her playthings and is orderly and systematic shows more of a natural bent toward being economical than the one who is careless and slovenly.

Most housekeepers believe themselves to be economical. I never knew but one who frankly admitted that she was wasteful, and probably she believed that in most things she was a very good manager. Many have economical streaks sandwiched in between wasteful ones, and they cannot see their own inconsistencies.

The most careful people have some weak point where they waste unthinkingly and complacently. We are all apt to get opinions of ourselves that are quite different from those which observers have of us. If we have the feeling that we already know all there is to know of a given subject, we are almost sure to shut ourselves off from further knowledge that we might get even from those who in some respects have had less experience than we. If, on the other hand, we realize that there is always something to learn, we shall be able to progress.

To be truly economical one must have good judgment and be able to discriminate between true and false economy. Like many other things, it is often disguised, and sometimes what appears on the surface to be good management is in reality quite the reverse, and what seems like reckless waste may be the truest economy.

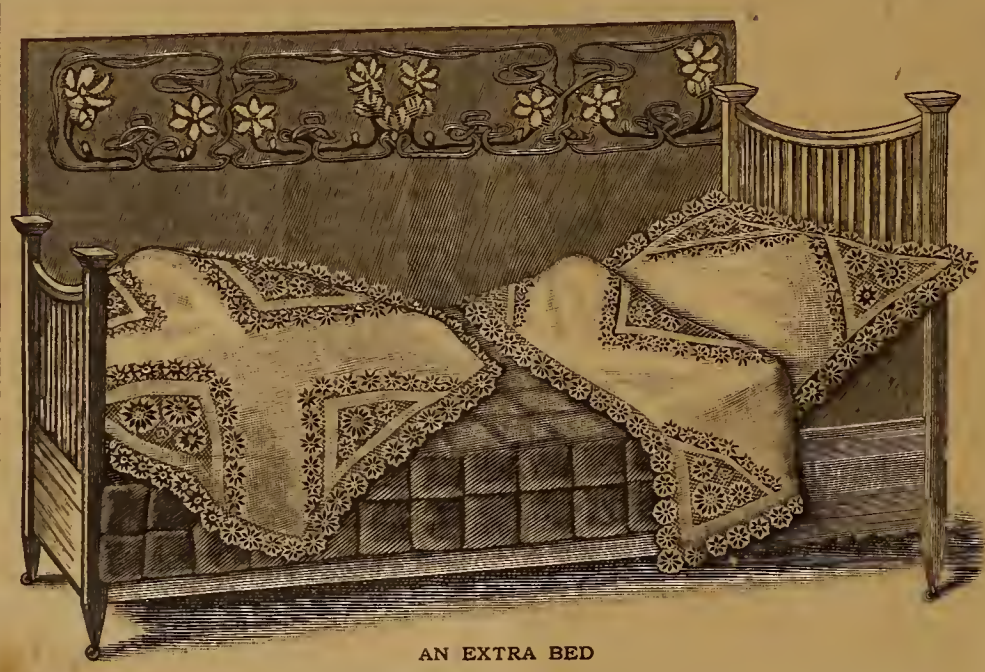
There are many points to be considered in the science of economy, and they are so closely connected that it is difficult to classify them. There are, however, two divisions of the subject that should be thought of. First, economy of health, and second, economy of material. I place economy of health first because any system of management that wastes the strength or impairs the health or cheerfulness of the housekeeper is the worst possible economy. It is not only bad because it makes unhappiness and disharmony in the home, but it also involves the other division of the subject—waste of material. If the housekeeper breaks down, some one else must do her work—some one who must be paid, and who almost invariably takes less interest than the housekeeper, and consequently wastes and breaks things. It also implies doctors' bills, and there is hardly anything for which one spends money that carries it off as fast as this. The housekeeper, therefore, can better afford to spend money to save her strength and keep her health than to waste these in order to save money that later on must go for doctors' bills. There are cases, of course, where the housekeeper has a burden almost greater than she can bear, and where she is obliged to work beyond her strength, but even then she should realize the importance of saving herself in every possible way.

In the saving of strength it is very necessary to know the quickest and easiest way of doing things, and here common sense and judgment must be used. One should always be ready and willing to try new ways, but she should also be able to decide quickly whether the new way is really better than the old. Sometimes labor-saving devices do not really save.

There is no way of getting one's work done without doing it, but if one thinks about it, and has some inventive faculty and is not too conservative, she will gradually develop a system that will enable her to run the domestic machine with the least friction.

There are no hard and fast rules about economy to be laid down for every one. Circumstances differ, and what holds good in one case would not apply to another. Each one must study her own case and take into account the physical and financial conditions that govern it. Then, if she thinks and studies earnestly, she will find the difficult subject growing plainer as time goes on.

SUSAN BROWN ROBBINS.



AN EXTRA BED

AN EXTRA BED

In all homes there are times when an extra bed is needed—in cases of sudden illness or when a visitor arrives unexpectedly. Get a single bed with head and foot nearly alike. Have a good woven-wire spring upon it, and a good mattress; also have an ornamented cover of brocade which matches the color-scheme of the room, and two large, soft pillows covered with the same material to set up at the back. Put fringe around the cover, which should just clear the floor, and heavy cord around the pillows. Against the wall at the back, tack on with brass furniture-tacks a piece of plain material of the prevailing color and a pretty border. This will look pretty in any sitting-room. A set of bedclothes can be prepared for it, and laid by for use. As illustrated it is ready for an invalid's daily use—the quilt being of silk quilted in large puffs, and the cases and sheet-sham being ornamental. W. D. M.

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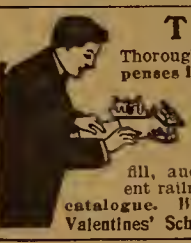
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The Housewife

RESIGNATION

I feel thy chastening rod, O God! nor dare
To murmur aught against thy just decree;
A bruised reed, I yet can come to thee
And know that thou wilt hearken to my prayer.
The day is well-nigh spent, the night is near,
But as the shadows gather over me,
Through their dark gloom my weary eyes can see
The dawning of a day more bright and fair.
Oh give me strength to follow that clear light,
Which, like the flaming pillar in the sky,
From Egypt led the wayworn Israelite,
And brought him forth from death to liberty!
Shine on my path, that I may see the way
That leads from darkness to eternal day.
—Louis A. Robertson, in Current Literature.

ABOUT APRONS

BEING too practical for the white, beruffled affairs, which require much laundering, I divide my kitchen-aprons into afternoon and forenoon lots. Thus, while in their first glory, my pretty prints or ginghams are reserved for afternoon or supper service, and as they become but slightly soiled, and do not have to undergo the heavier wash, retain for a long time their crisp, new look. If donned at once for the work which is rough and liable to stain, they soon become grimy and unfit to wear over the afternoon gown.

A great help is also the large oil-cloth apron made to slip loosely over the head and extend to the bottom of the dress. Mine occupies a convenient hook in the kitchen, and is donned whenever occasion requires. On wash or scrub days, or when doing the dishes, it is always in demand, and I find it lessens materially the number of aprons in the weekly laundry.

MRS. HENRY N.

FOR FANCY-WORK

Take one yard of silkoline, and trim the ends so they are straight, taking enough off to cover four disks of cardboard about four inches in diameter.

After covering these disks carefully, drawing the silkoline smoothly and firmly in place, gather each end of the straight piece you have (better gather it twice), and fasten around one disk, laying it on to the depth of the second row of gathers and making it come almost three fourths around. Then lay one of the disks on top, and whip the two together. Fix the other end the same way. Before whipping the disks quite around, take one fourth of a yard of ribbon, fold to make a loop, and place it at the top of the disk, one at each end. This is to be used to hang the holder up.

When one has fancy-work in her lap, and is called away suddenly, it is very handy to take hold of the loops of ribbon, catch it up, and hang on a convenient hook, and the fancy-work is all inside and ready for next time. W. D. MARSH.

CORN-BREAD PUDDING

Break cold corn-bread up fine, and set it to soak in hot sweet milk. To one pint of the soaked bread add one cupful of suet rubbed fine, one egg, one half cupful of sweet milk, a pinch of salt, one cupful of sugar and enough sifted meal to make a rather stiff batter. Mix well, and pour into a well-floured pudding-bag, and drop into boiling water. Boil one hour, and serve with lemon sauce.

MRS. W. L. TABOR.

AN UNUSUAL PUDDING

The ingredients are one teacupful of toasted bread-crumbs, one glassful of jelly, one pint of boiling water, one half teacupful of sugar and one teaspoonful of lemon or orange extract. Place in a greased pudding-pan the crumbs and sugar after they have been well mixed. Put over the fire in a pan the glassful of jelly and the boiling water, and leave until the jelly is melted; then stir in the extract, and pour slowly over the crumbs in the pudding-dish, stirring all the while. Bake or steam slowly for an hour or more, and set away to cool into a loaf. Serve with any thin sauce. The pudding has been pronounced very good.

MAY MYRTLE FRENCH.

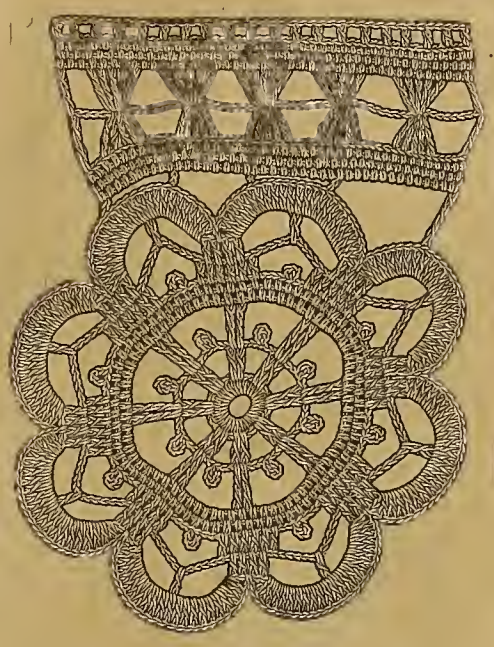
NEW DESIGN FOR WHEEL EDGING

Abbreviations—Ch, chain; s c, single crochet; tr, treble; st, stitch.

Ch 8 to form a ring.

First row—Make 24 s c in the ring.

Second row—Make 1 tr in first and second st, * ch 6, catch back in fifth st to form a picot, ch 1, miss 1 st, 1 tr in each of the next 2 st; repeat from * until there are 8 double tr and 8 picot in ring.



WHEEL EDGING

Third row—Work 2 long tr (thread over hook twice) on the 2 tr of previous row, ch 7; repeat around.

Fourth row—Make 1 s c in every st of row.

Fifth row—Make 4 s c in 4 st—this will bring you to the center of the section. Now make a picot of ch 5, work 8 s c in 8 st, which brings you to the center of next section, and so continue until you have 8 picots in this row.

Sixth row—Work 6 tr in 6 st—the third and the fourth tr should be in a straight line with the 2 long double tr in the third row—ch 9; repeat from the beginning of row.

Seventh row—Make 4 tr on 6 st of previous row, ch 6, 1 tr in center of ch 9, ch 6; repeat from the beginning of row.

Eighth row—Make 12 tr under ch 6, 1 tr on tr, 12 tr under next ch 6, 1 s c between the second and third tr of the 4 tr; repeat around.

Join the wheels at the center of two scallops.

HEADING

First row—Fasten the thread in the eighth tr of the first upper scallop, * ch 3, 1 s c in the thirteenth tr, ch 3, miss 3, 1 s c in the next, * ch 9, 1 s c in the eighth tr of the next scallop; repeat from * to * once, ch 11, 1 long tr in the seventh tr of the next scallop, 1 long tr in the center half of the next scallop, ch 11; repeat.

Second row—Make 1 s c in every st of row.

Third row—Like second row.

Fourth row—Make 1 long tr in each of the first 5 st, working off two loops at a time, twice, leaving the other loop on the hook. When you have six loops on the hook, thread over and draw the thread through the six loops, * ch 6, miss 2 st, 5 long tr in next 5 st, worked off the same as before; repeat from * to end of row.

Fifth row—Break off the thread, and tie it on the other end of row. * Make 5 long tr in the six loops that were worked off in the tr of preceding row. In this row work off all the loops of the tr by twos, ch 2; repeat from * to end.

Sixth row—Make 1 s c in every st of row.

Seventh row—Like sixth row.

Eighth row—This is made of ch 1 spaces.

MRS. J. R. MACKINTOSH.

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Josephine

Winning a Cold Sweetheart and a Sunny Home

By FRANK H. SWEET

CHAPTER IV.

AN ODD COINCIDENCE

"You've heard of Spencer Grant, I suppose, Mabel," said Josephine before the young man had approached within hearing.

"No, I don't think so, though the name does seem familiar."

"Of course you've heard of him," said Josephine, positively. "You used to write some for the magazines, and always kept yourself better posted on such matters than I did, and I often see his name. You haven't placed him yet, that's all. Spencer makes pictures for lots of the New York papers and magazines, and has illustrated several books. You've read 'The Fisherman's Net?'"

"Yes; I have a copy in the house—why, to be sure!" Her face brightened suddenly. "I thought the name seemed familiar. He illustrated 'The Fisherman's Net,' and now I do believe I have seen the name in other places. So that is Spencer Grant." She half rose in her enthusiasm, then sat down again, laughing. "It must be nice to meet men like that," she said, with a soft blush. "I may have read a good deal, Josephine, but I've never been out among people as you have. You must excuse my giddiness, though. I feel light-headed and light-footed, somehow, as though I must sing or dance. Maybe it's the reaction. I don't mind the money part so much, but it has been hard to feel that mother and I were shut away from everything and everybody we know."

Josephine stroked the hand which lay within hers caressingly. "A little giddiness won't hurt you, Mabel," she said. "Sing and dance all you can. I shall have a straight talk with mother, and I think that part of the matter will come around all right. She generally listens to me. I wish I had understood things before. But here is Spencer. I hope you won't be disappointed in him, dear," lowering her voice. "He's merely a young man like most of the others, with plenty of every-day faults, though I admit he is rather nice, and he's thoroughly sincere. I've known him quite a long time, and we are almost like brother and sister. Ah, Spencer!" rising as she spoke, "you've got around at last, have you? I want to make you acquainted with my cousin, Mabel Carruthers. She thinks she has seen your name occasionally, as I feel pretty sure you have hers. Mabel, Mr. Spencer Grant, the artist." She swept them a mock courtesy, and sat down. Mabel flushed protestingly.

"Oh, Josephine, how could you!" she exclaimed. "I've only had a few stories published, and those in unimportant magazines. Mr. Grant—"

"Has certainly read some of them, or else has heard about you," declared Josephine, triumphantly. "Just look at him! If that isn't a telltale face, then I'm no mind-reader. Confess, sir!"

Spencer had been regarding Mabel with an odd expression on his face. He now laughed outright. "I bow to your acuteness, Josephine," he said. "I didn't know that I was so transparent." He took a bulky envelope from his pocket, and drew from it what appeared to be a folded manuscript. This he opened deliberately.

"'A Tale of Pitt's Island,'" he read. "Does the title seem familiar to you, Miss Carruthers?" looking at Mabel. "Oh, yes," as though he had just discovered it, "here is a name in the corner—'Mabel Carruthers, Pineapple Place, West Palm Beach.' Really, it does seem as though it might be you."

Mabel stepped quickly to his side, her face rosy. "Yes, it is mine," she said, as she glanced at the manuscript. "But how did it come into your possession, Mr. Grant? I sent it away two weeks ago, and have not even heard that it was received at the office yet. Oh!" she said suddenly, "are you the editor?"

"No, I haven't that honor," he replied. "I have never been inside the office." Then, relenting at the sight of the puzzled wonder on her face, he added, "But I do know the editor slightly through correspondence. This morning's mail brought me 'A Tale of Pitt's Island,' with a request that I should illustrate it profusely. The story is to be a feature of the March number, I believe. And," with friendly congratulation in his voice, "allow me to add that I have looked over the manuscript, and like it very much. Coming out, as it does, while the crowd is still here, the story will be widely read. And you did not even know that it was to be accepted?"

"No; but I often have articles out a month or more before they are decided upon. I am glad, though, it is accepted," her eyes bright, and a little quiver coming into her voice. "It is the best magazine I ever sent a story to; and mother will be even more pleased over it than I am. And then, to think it is to be illustrated, too."

"I will put some of my very best work into it," promised Spencer, gaily. "We'll see if we cannot make it capture the fickle reading public for a single fleeting moment."

"Of course you will put in your best work," broke in Josephine; "your very, very best. Remember, if there should be the least falling-off in the most unimportant of the marginal pencil-marks, the penalty will be something awful to contemplate. We will—yes, we will consign you to the merciless revenge of the wild boatman out yonder. He shall ferry you back and forth, back and forth, until the recreant pencil-marks fade out through their own inanity. He—"

Spencer threw up his hands. "Mercy in advance," he laughed. "I shall let my soul flow out into the lines, and my brain shall marshal them into perspectives that will be like dreams. If there is the least little flaw it will be involuntary, and will be a semblance of the baleful eyes and extended claws of the boatman."

"Oh, stop! stop!" implored Mabel, raising her hands to her ears. "What horrible visions you are conjuring up; and all about my poor little story, too, that I wanted to be so dainty and nice. If you two so much as let one baleful eye get into it, even to peer out from behind the last letter of the last line, I—I—"

"Yes, it is mine," she said, as she glanced at the manuscript

"Will not treat the malefactors to peanuts when the check comes in," finished Josephine, solemnly. "And oh, say, Spencer, by the way," changing her tone and expression instantly, "Mabel will get a check for the story, won't she?"

"Certainly. Miss Carruthers need feel no uneasiness on that score. I know the reputation of the magazine, and it is very good. Probably the editor is waiting to hear from me before writing to Miss Carruthers; or perhaps he listed the story as accepted, and allowed the fact to find its way into the business office in the regular manner. Few editors send out checks themselves; that belongs to a different branch of the house. I suppose the editor found this story timely, and sent it off to me just as soon as he read it. My being on the spot naturally gave me preference over other artists. He might have been very busy at the time, and so put off writing until he should have more leisure; or it may be that a check will be Miss Carruthers' first notice of the story's acceptance. Editors are usually methodical, but they are also human. The check is sure to come, however, and being from that magazine, it is sure to be a nice one."

There was a stir inside, and Mabel left them with a hurried excuse. When she returned her eyes were shining. "Mother is awake," she said. "She heard us talking, and recognized Josephine's voice at once. I was afraid it might agitate her, but it seemed to have just the opposite effect, for she appeared better than I have seen her for a week. Only," softly, "she is very, very eager for 'Josie.' When we used to be together, I think mother loved 'Josie' almost as much as she did me." She stood by the door, holding it open. "You go in first, Josephine," she said. "I will stay out here a few minutes with Mr. Grant, and then bring him in, too. Mother wants to see him, and thank him for the interest he has taken in my story, but she wants you first. I have told her about everything—the story and its illustrating, and about you and Mr. Grant, and—" She looked at her cousin archly, but Josephine raised her finger.

"Didn't I tell you that Spencer and I were just good friends," she said, severely; "almost like brother and sister?" Then she went inside. Spencer looked at them smilingly.

An hour later, as they were going down the path toward the railroad bridge, Josephine turned suddenly to him. "Well, Spencer, how did you like her?" she asked.

"You mean your cousin, of course," he said. "Why, I think she is the most beautiful girl I ever met. You may well be proud of her, Josephine."

"I am," with an odd little laugh. "But you don't half know her, Spencer. She's just as sweet as she is beautiful, and just as intelligent as she is sweet. We must go up there again very soon, for I want you to know her as I do. I'm glad you're to consult with her about the pictures and to take her up to Pitt's Island. You'll find she can talk differently from most of the young ladies you meet. But isn't it strange and nice—you two coming together in this way? You make pictures for stories, and she writes stories that can be filled full of pictures, and you have one of her very own stories in your pocket the first time you see her. It's just like a romance," clasping her hands ecstatically, "and there won't be any horrid old chapters to twist it out wrong. Aunt Helen likes you—I heard her say so; and Mabel—well, we needn't say anything about Mabel. And you both have objects in life, and still aren't priggish. You like sports and to dance, and Mabel can beat you playing golf or sailing a boat any day, and she is fond of dancing, too. Why—"

"Look here, Josephine," he interrupted, curiously, "what are you driving at?"

"Why, you and Mabel, of course, stupid. I planned it all out while I sat there watching you talk. You're to marry Mabel and live over on this side and work together. The hotel isn't any place for you, you know. It would be all play there. You'll build a new cottage where Aunt Helen's old house stands now, and buy more land, and sometimes I'll come and sit on the piazza with my chin in my hands, and listen. But you're laughing," she said, indignantly.

"No; was I, really? Then I beg pardon, I'm sure. It was very naughty of me." He looked down at her quizzingly. "I'm afraid Miss Carruthers will have to yield the palm to you for imagination, Josephine," he said. "You ought to tell her this, and let her weave it into a romance. It would be a relief after the present cross-purpose ones on the market. But yours lacks one very essential feature."

"What is that?" she asked, impatiently.

"The right heroine, dear. It is you I love."

"Oh, fudge!"

[TO BE CONTINUED]

FAIRY SONG

Shed no tear! Oh, shed no tear!
The flower will bloom another year.
Weep no more! Oh, weep no more!
Young buds sleep in the root's white core.
Dry your eyes! Oh, dry your eyes!
For I was taught in Paradise
To ease my breast of melodies—
Shed no tear.

Overhead! look overhead!
'Mong the blossoms white and red.
Look up, look up! I flutter now
On this fresh pomegranate bough.
See me! 'tis this silvery bill
Ever cures the good man's ill.
Shed no tear! Oh, shed no tear!
The flower will bloom another year.
Adieu, adieu—I fly—adieu!
I vanish in the heaven's blue—
Adieu, adieu!

—John Keats.

BONNY PRINCE JACK

[CONTINUED FROM PAGE 1]

cut direct—but "How are you, Jack?" or "Good-morning, Jack."

If he cared to acknowledge the salutation, he cocked his head, raised his ears inquiringly, and gave a few thumps of his tail on the porch by way of recognition. If it happened to be the grocer's boy or some one he was not particularly fond of, he greeted them just about as effusively as Mrs. Stuckup greets her washerwoman—that is, not at all.

Jack soon became the acknowledged leader of his set and the recognized champion of every canine in the block—"the little dogs and all." If a strange dog attempted to render his presence obnoxious by his intrusion into the Square's society, Jack nearly always headed the committee of remonstrance. The very manner in which he confronted the interloper haughtily implied,

"I am the master's dog at Kew,
Pray tell me, sir, whose dog are you?"

If the stranger could not give a plausible account of himself, he was delivered over without further ado to the tender mercies of the Square's High Lord Executioner and his assistant Tidly Winks. The High Lord Executioner was a bulldog, lop-eared and cropped-tailed, and as ugly as the—Pluto. His assistant Tidly Winks—you couldn't help liking Tidly—was a compromise between a collie and a shepherd, with the virtues of both. Imagine the contrast, but cast no insinuations upon their ability as "bouncers." Never in the history of the Square had an alien paid a second visit. The first afforded enough excitement for a lifetime.

Among the estimable ladies of our neighborhood was an elderly spinster whose pet abhorrence was dogs. In fact, her pronounced dislike for canines in general had gotten to be almost proverbial among her personal acquaintances. She detested the sight of every animal in the Square without a single exception. It was a dog that tracked with muddy paws her freshly cleaned porch; it was probably his brother-in-law who howled unceasingly at midnight, and the whole wickedly contaminated breed that persisted in a vigorous persecution of her favorite feline.

Her keenest delight was to secrete herself behind the door, leaving a narrow crack for observation. The first luckless cur that crossed her line of vision was pounced upon with all the vigor of an Amazon. A broom-handle was her instrument of attack, and she wielded it with no gentle hand. The grin of self-congratulation that followed the victim's yelping dash for life and liberty would have shamed a Cheshire.

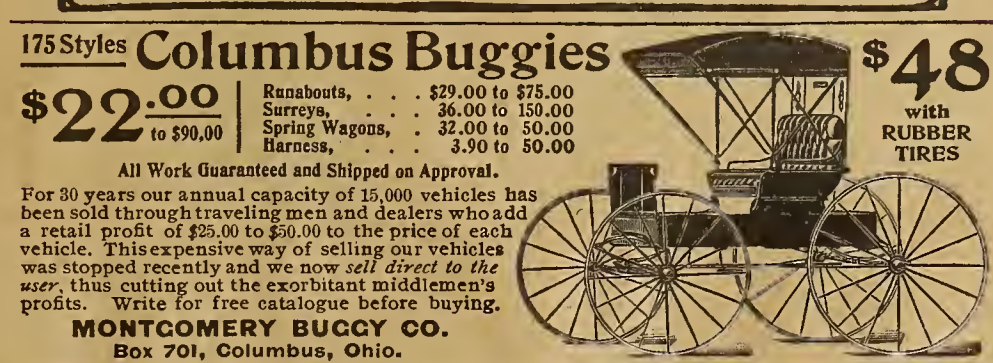
One day I was fortunate in beholding Bonny Prince strolling slowly down on the opposite side of the street. He was utterly oblivious of impending danger until a woman of menacing aspect came flying at him with an uplifted broomstick. Jack merely stopped, elevated his lip, displayed a line of bristling fangs, and vented his disapproval of the proceedings in a low, deep-throated growl. The woman eyed him dubiously for a moment, then beat a hasty and ignominious retreat. Ever after that one yellow dog was not molested.

The above amusing incident was only the prelude to a fitting climax. Scarcely a month had elapsed before Jack had won that woman's friendship. Not an opportunity was disregarded that enabled him to ingratiate himself in her good graces. He even ignored the traditions of his race, and inaugurated a truce with her favorite tabby, "Josephine." It soon became apparent to the residents of Washington Square that a certain neighbor of theirs had renounced her vows and pinned her newly developed faith to the cleverness of a yellow dog—"his majesty" Bonny Prince.

One night I was awakened by a piteous moan at the bedside. It was very rarely that Jack disturbed us at night, and I reached out my hand to reassure and quiet him. As my fingers touched his neck, his fur felt moist and sticky, and as he laid his head in my hand his body sank to the floor. Considerably alarmed and mystified by his strange behavior, I rose and struck a light.

Never shall I forget the sight that greeted me. On the floor beside the bed, with his pretty white bosom dyed by his

[CONCLUDED ON PAGE 21]



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which carries as its regular departments every month—The Mother and The Home; Club-Woman's Page; Books; Travel; Physical Culture; Science; With Young Men; Our Girls, edited by Mrs. Cynthia Westover Alden, President Sunshine Society; Literary Chat; Music; Art; Elocution and Children's Page. It is of absorbing interest to every one in the home. *One dollar* a year. If you write, mentioning this magazine, and inclose one dollar subscription, you will receive October, November, December and January numbers *entirely FREE*, with two sheets of music and two Art Studies in color, together with your year's subscription, making sixteen numbers in all. Ten cents for sample copy. Address

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CARBORUNDUM
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How to Dress

BLOUSE HOUSE-GOWN

LOUISINE, foulard and all soft silks are shown among the newest importations and in the opening displays of spring materials. The very stylish and effective shirt-waist suit illustrated is made of louisine in a check of gray and white, and is trimmed with pipings of black.

The waist makes one of the latest designs, and includes the broad box-plait at the front with the fashionable slot-seams. As illustrated it is held by large buttons of oxidized metal touched with gilt.

STYLISH INDOOR GOWN

Costumes made of canvas and of soft wools which include deep tucks or plaits are always graceful and much in vogue for indoor wear. The smart model illustrated is shown in canvas in orchid violet, stitched with black and trimmed with black silk appliqué.

The blouse is both new and becoming, and closes at the left front beneath the tuck. The back is plain, and gives the "V" shape, which produces tapering lines, while the front blouses slightly over the belt.

BLOUSE HOUSE-GOWN

NORFOLK JACKET SUIT

No style of costume will be more popular for early spring than the one made with box-plaits and a skirt that clears the ground. The very stylish model illustrated is made of cheviot in medium gray—a color which will be exceedingly fashionable the season through—but is suited to all the season's materials.

The skirt is one of the newest, and is cut in nine gores, with a box-plait at the straight edge of each gore and an additional one applied over the center back, which gives the skirt the habit-back effect with a graceful flare at the feet.

INDOOR GOWN

NORFOLK JACKET SUIT

SOMETHING TO REMEMBER

One thing to remember is the wisdom of making over old garments into the new styles, because the elaborate frocks are so chopped up for inserting, and stitched over with braid and straps, that it would be a hopeless task to remodel them another year.

Slashed sleeves and skirts are noticeable this winter, as are the Oriental and colored embroideries which mingle so beautifully with the fabrics they ornament, the constant use of Russian jackets for outdoor and indoor garments, the double-breasted boleros and the popular "Monte Carlos." These bid fair to run well into the summer.—New Orleans Picayune.

HOUSE-SACQUE

The dainty little butterfly house-sacque is made of pink albatross lined with pink China silk. It is simply trimmed with Manhattan silk braid sewed around the edges. A knot of pink ribbon trims the front and the sleeves where they are gathered. The ribbon can be removed when the sacque is washed—and it will launder like a rag.—New Orleans Picayune.

FADS

A new and novel fad in handkerchiefs is to have them dyed to match the gown with which they are carried. These are made with a very narrow hem, and are carried only by women of wealth. A clever woman who is not wealthy might dye her own very cheaply. Women of fashion have a dozen of them to each gown.

White handkerchiefs are exceedingly elaborate, and are trimmed with lace, appliqués and blind embroidery. A new fad is for white silk handkerchiefs with velvet edges.—New Orleans Picayune.

BLACK COSTUMES

Black costumes in net, lace, crêpe de chine and similar fabrics will be fashionable all winter, though white is the favorite. Silver spangles are much used upon evening gowns.—New Orleans Picayune.

Any of these separate patterns sent from this office for ten cents.

BLOUSE HOUSE-GOWN. — Blouse No. 4335. In sizes 32, 34, 36, 38 and 40 inches bust measures. Slot-seam Skirt No. 4197. In sizes 22, 24, 26, 28 and 30 inches waist measures.

INDOOR GOWN.—Blouse No. 4339. In sizes 32, 34, 36, 38 and 40 inches bust measures. Seven-gored Skirt No. 4221. In sizes 22, 24, 26, 28 and 30 inches waist measures.

NORFOLK JACKET SUIT.—Norfolk Jacket No. 3964. In sizes 32, 34, 36, 38 and 40 inches bust measures. Box-plaited Skirt No. 4337. In sizes 22, 24, 26, 28 and 30 inches waist measures.

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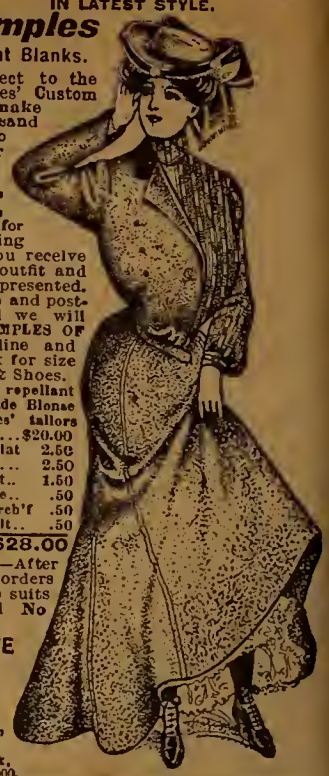

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Two regular sized packets of choice vegetable and one of beautiful flower seeds and illustrated Seed Catalogue Manual, sent free if you send us this notice or mention this paper, enclosing 4c in stamps to help pay the mailing and packing. We are very anxious for you to get our catalog manual, and see the large fat packets we sell for 3c each and the
Great Bargains In Garden, Grass and Field Seeds.
We are extra strong on Oats, Corn, Kaffir Corn, Cane, Wonderful Pencilaria, Japanese Millet or Billion Dollar Grass, Teosinte, Bromus Grass, Soja Beans, Cow Peas, Rape, Thousand Headed Kale, Grass Seeds, Pasture Mixtures, all kinds of vegetable and grass seeds, garden tools, poultry supplies, berry boxes and baskets. You must get our catalog manual, it's free for asking. Be friendly. Write us.
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Originated by Beagley, originator of Iowa Silver Mine. Like Silver Mine except in color, but a little earlier. Good sized ear and deep grain, type well fixed and uniform, and A GREAT YIELDER. Latest and greatest production of this famous corn breeder. Send postal for Common Sense Catalogue of all leading varieties of Corn, Potatoes, Oats, Barley, Clover and Grass Seeds, Garden Seeds, etc.
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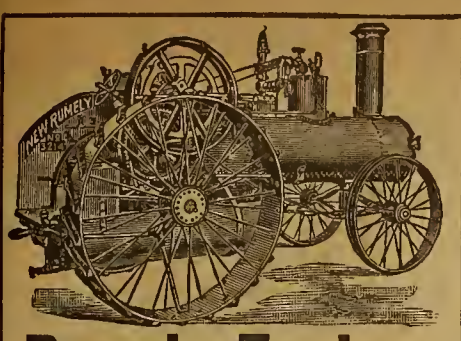

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both as to traction and generating and supplying power, are typical of all that is best for threshermen. They are rear geared, gears are of steel, cross heads and slides are protected from dust, they are free from all trappy devices. Single or double cylinders, burn wood or coal, or direct flue for burning straw. Fit companions in the threshing field for the famous **New Rumely Separators.** Free catalogue describes all. Write for it.

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$48 TOLMAN RANGES $23.75

with high closet and white enamel lined reservoir (or water front.) **Great Foundry Sale.** We ship range for examination without a cent in advance. If you like it pay $23.75 and freight and take range for

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Will save their cost in fuel in **One Year.** Write today for our catalogue.

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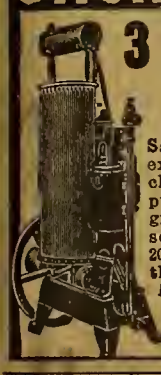

3 HP GASOLINE ENGINES

Safe, strong, serviceable, durable, expenseless, cheap in price. A child starts it. Runs itself. Saws, pumps, grinds, separates, runs grind stone, churn, washing and sewing machines. Floor space, 20x40 inches, weight, 1000 lbs. Full three Horse Power. Guaranteed. Let us write you.

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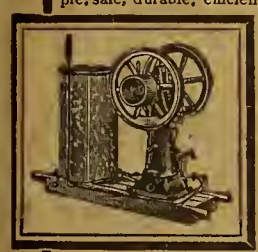
USE A POWER.

Here is one to fit your many needs to a nicety. Simple, safe, durable, efficient, fully guaranteed. The



WEBSTER Vertical **Gasoline Engine**

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ALLIGATOR BOX PRESS

can bale 22 tons of hay in 10 hours or **NO PAY.**

Circulars Free.

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Does best work with least labor. Does not mix water and milk. Does away with all skimming, lifting and handling of crocks. Has detachable inner can, self-sealing attachment, sanitary faucet. Write for prices and printed matter. *Agents wanted.*

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Over 70 sizes and styles, for drilling either deep or shallow wells in any kind of soil or rock. Mounted on wheels or on sills. With engines or horse powers. Strong, simple and durable. Any mechanic can operate them easily. Send for catalog.

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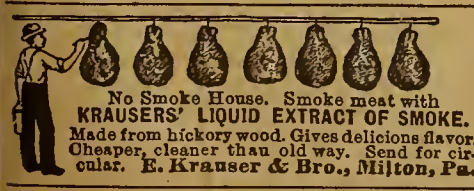

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BEES If interested in bees subscribe for the **Progressive Bee-Keeper** 50c per year. Sample copy free, also copy of catalogue of Bee Keepers' Supplies.

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Miscellany

A VALENTINE

Oh! Montmorency Vere de Vere,
To think that one I held so dear
Should use a base deceiver's art
To trifle with my loving heart.

A brand-new ten-cent valentine,
With lace and hearts and verses fine,
I sent to show my love for thee,
And in return you send to me
The one I sent to you last year,
Oh! Montmorency Vere de Vere.
—Ellis Parker Butler, in Leslie's.

CHEMISTRY IN MODERN BUSINESS

A CHEMIST renders valuable service to a railroad company—and to the traveling public—by protecting his company against poor grades of steel in boilers and rails, and poor iron in wheels. Upon his analysis will depend the selection of water for boiler purposes and coal for engines and blacksmith-shops. Paints and oils are submitted to him for the purpose of detecting any adulteration, while Babbitt metal and brass will be accepted or rejected according to his analysis. In short, the public little appreciates the scientific care taken for its safety, and knows little of the varied duties of the chemist of a great railroad company. In like manner, the work of a chemist in any great commercial industry could be shown to be equally valuable and necessary.

It might be interesting, at this point, to add a few of the numerous "fakes" and adulterations which the chemist exposes. Alcoholic liquors are found masquerading under all sorts of names. A "soot-consumer" at twenty-five cents a pound may prove to be common salt worth perhaps two cents, and "pure lampblack paint" has been found to be two thirds brick-dust. A "butter-compound" guaranteed to double the output of butter turns out to be a worthless digestive ferment, and "freezing-compounds" or "ice-mixtures" are unsatisfactory and expensive experiments which chemists will advise the unwary to turn away from. Antimony sulphid bought in the open market has been found to consist mainly of charcoal, and in the endless list of food products the chemist may find a fruitful field to work in, for there it is that adulteration runs riot. These instances, together with the analyses for poisons, constitute a class of chemical work in which the spurious and injurious are detected despite the cleverness of impostors.
—Howard C. Parmelee, in Success.

A PORK-PACKER'S WISDOM

A fellow and his business should be bosom friends in the office, and sworn enemies out of it. A clear mind is one that is swept clean of business at six o'clock every night, and isn't opened up for it again until after the shutters are taken down next morning.

Culture is not a matter of a change of climate. You'll hear more about Browning to the square foot in the Mississippi Valley than you will in England. And there's as much art talk on the Lake front as in the Latin Quarter. It may be a little different, but it's there.

There's a chance for everything you have learned, from Latin to poetry, in the packing-business, though we don't use much poetry here except in our street-car ads, and about the only time our products are given Latin names is when the state board of health condemns them.

We didn't have to know fractions to figure out our profits [when he began business]. Now a merchant needs astronomy to see them, and when he locates them they are out somewhere near the fifth decimal place. There are sixteen ounces to the pound still, but two of them are wrapping-paper in many stores.

Adam invented all the different ways in which a young man can make a fool of himself, and the college yell at the end of them is just a frill that doesn't change essentials. The boy who does anything just because the other fellows do it is apt to scratch a poor man's back all his life. He's the chap that's buying wheat at ninety-seven cents the day before the market breaks.

Okolona, Ark., May 18, 1901.

I am glad to tell you I found Black-Draught Stock Medicine the greatest medicine in the world for horses. I use it all the time and my horses keep fat since I began giving them your medicine.

J. E. SMART.

WITH good food, a warm, clean stable, a good rubbing-down every evening and a little Black-Draught Stock Medicine in his food occasionally, a horse is the easiest animal to keep in health. A horse is too valuable a piece of property to let run down into sickness and disability. A little care and common sense is all that is needed. Excessive work and constant strain with poor care, make a horse constipated and then a long list of hide, joint, blood and lung troubles come on. Hide bound horses are cured by loosening their bowels with Black-Draught Stock Medicine. Stiff joints, bots, pneumonia, corn-founder, the scours, colic, blind staggers, glanders and mange never exist when the animal has regular bowels and a healthy liver. If your horse has hard, dry droppings he needs attention. And the best thing you can do is to give him a dose of Black-Draught Stock Medicine to loosen his bowels and stir up his torpid liver. It is better to purchase a 25-cent can of Black-Draught Stock Medicine now than to lose his work for days next week. Then a veterinary's services are expensive. Thousands of horse owners are keeping their stock in health by using this great remedy in their stables. Black-Draught Stock Medicine is as good for cattle, hogs and poultry as for horses.

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I have used Black-Draught Stock and Poultry Medicine for ten years. My horse was down with colic and I drenched him and in two hours he was all right.

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AMERICA'S BED FOR 1903

The plants to make this attractive and showy bed are worth from $2.75 to $5.00, according to size, but you can have the Seeds to grow them free of charge by enclosing this advertisement with your cash order amounting to $1.00 or more. See large illustration and full description in Landreth's Catalogue. Write to-day for the catalogue.

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FARM AND GARDEN SEEDS

We are **Growers** of **New** and **Improved** varieties of **Seed Grain, Seed Corn, Seed Potatoes,** and of **Pure** and **Hardy Strains** of **Vegetable Seeds** Our stock of **High Grade Timothy** and **Clover Seed, Turkestan Alfalfa, Rape, Sugar Cane, Macaroni, Wheat,** etc., is the **most complete. Hardy** and **Rare kinds** of **Small Fruit Plants, Ornamental Shrubs** and **Novelties** in **Flower Seeds. Clover Grass Mixtures for Permanent Pastures and Meadows** our Specialty. **Reasonable prices, best railroad connections, special seed rate** to the Northwest. **Large illustrated catalog free 10 rare Farm Seed samples for 10c.**

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In accuracy, certainty, evenness and durability, no other planter can compare with

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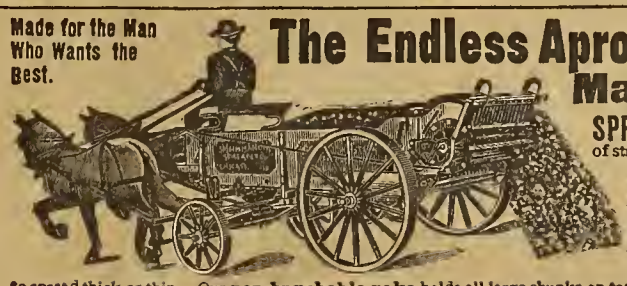
Combined Hill and Drill Drop. Cannot Miss Hills.

Take no chances on the corn crop. New-fangled Drops, adopted in the hope of approaching the efficiency of the old reliable Avery, may work well and make a showing with selected grains of corn, but **reliable work in the field is what counts.** They will be effective only as they approach the Avery principle, the type which all others would emulate. Adjustable in width, all modern improvements. Six styles of Cultivators; Farm Wagons, Stalk Cutters, etc. All high grade.

Three Free Catalogs—T for Threshers and Engines. W for Wagons, H for Farm Implements. Write for the one you want. **AVERY MFG. CO., 532 Iowa St., Peoria, Ill.**

Made for the Man Who Wants the Best.

The Endless Apron Great Western Manure Spreader.



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600 Acres. 13 Greenhouses. Established 1852.

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SILOS FROM PUGET SOUND TO YOUR FARM. We shall ship to your town, Silo Stock of **Staves One Piece the Depth of Silo.** Oregon Pine which owing to length must be handled in car loads, giving to people contemplating the erection of a Silo in 1903 the benefit of through car load freight rates in a delivered price on Silo complete. Write us, giving size best adapted to your wants, and have booklet, "Silos and Silage," mailed you. It shows how to build, how to fill. WILLIAMS MFG. CO., Kalamazoo, Mich.

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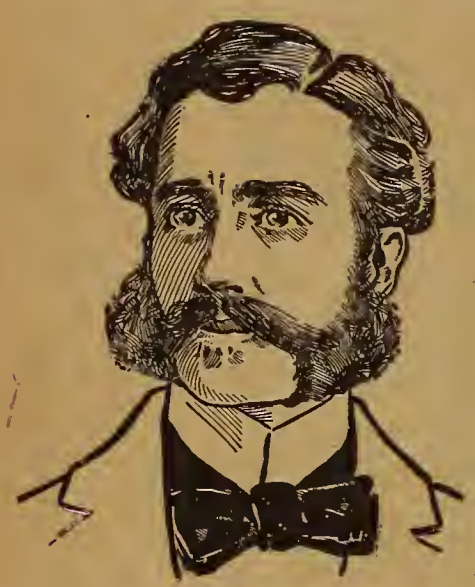
Marvelous Elixir of Life Discovered by Famous Doctor-Scientist that Cures Every Known Ailment

Wonderful Cures Are Effected That Seem Like Miracles Performed—The Secret of Long Life of Olden Times Revived

The Remedy is Free to All Who Send Name and Address

After years of patient study and delving into the dusty record of the past, as well as following modern experiments in the realms of medical science, Dr. James William Kidd, 122 Baltes Building, Fort Wayne, Indiana, makes the startling announcement that he has surely discovered the elixir of life. That he is able with the aid of a mysterious compound, known only to



DR. JAMES WILLIAM KIDD

himself, produced as a result of the years he has spent in searching for this precious life-giving boon, to cure any and every disease that is known to the human body. There is no doubt of the doctor's earnestness in making his claim, and the remarkable cures that he is daily effecting seem to bear him out very strongly. His theory which he advances is one of reason and based on sound experience in a medical practice of many years. It costs nothing to try his remarkable "Elixir of Life," as he calls it, for he sends it free to any one who is a sufferer, in sufficient quantities to convince of its ability to cure, so there is absolutely no risk to run. Some of the cures cited are very remarkable, and but for reliable witnesses would hardly be credited. The lame have thrown away crutches and walked about after two or three trials of the remedy. The sick, given up by home doctors, have been restored to their families and friends in perfect health. Rheumatism, neuralgia, stomach, heart, liver, kidney, blood and skin diseases and bladder troubles disappear as by magic. Headaches, backaches, nervousness, fevers, consumption, coughs, colds, asthma, catarrh, bronchitis and all affections of the throat, lungs or any vital organs are easily overcome in a space of time that is simply marvelous.

Partial paralysis, locomotor ataxia, dropsy, gout, scrofula and piles are quickly and permanently removed. It purifies the entire system, blood and tissues, restores normal nerve power, circulation, and a state of perfect health is produced at once. To the doctor all systems are alike and equally affected by this great "Elixir of Life." Send for the remedy to-day. It is free to every sufferer. State what you want to be cured of, and the sure remedy for it will be sent you free by return mail.

A HANDSOME WATCH GIVEN AWAY

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$3 a Day Sure Send us your address and we will show you how to make $3 a day absolutely sure; we furnish the work and teach you free, you work in the locality where you live. Send us your address and we will explain the business fully, remember we guarantee a clear profit of $3 for every day's work, absolutely sure. Write at once. ROYAL MANUFACTURING CO., Box 810, Detroit, Mich.

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If ruptured write to Dr. W. S. Rice, 1555 Main St., Adams, N. Y., and he will send free a trial of his wonderful method. Whether skeptical or not get this free method and try the remarkable invention that cures without pain, danger, operation or detention from work. Write to-day. Don't wait.

The Young People

GAMES OF ACTION

Children never tire of ring games. They like the simple ones best—those that do not tax the memory to any great extent. They prefer something with a catching swing in the rhythm, carrying the same words through many verses, with just enough change to indicate the progress of the game.

The "game of flowers" is simple and sweet. It is played similar to "London bridge." Two children stand opposite each other, and raise their joined hands. Those forming the ring pass under, while all keep saying or singing, suiting the action to the words they sing:

"We're looking about for a daffodil,
A daffodil, a daffodil;
We're looking about for a daffodil,
We've found one here."

At the word "here" the raised arms come down and inclose the head of the child who happens at that moment to be passing under their hands. Then all sing:

"We find one here; we find one here;
We're looking about for a daffodil,
And find one here."

"Daffodil" now takes the place of one of the children who caught him or her, then calls out, "Buttercup." The children all understand that buttercup, instead of daffodil, is the word, so they make the lines:

"We're looking about for a buttercup,
A buttercup, a buttercup;
We're looking about for a buttercup,
We've found one here."

The leader may hold a bouquet and give to each child the flower chosen. The next child, "Buttercup," being duly "found," takes the place of "Daffodil," and the child who has held that place goes into the ring. The new-comer calls out the name of some flower, like bluebell, daisy or mignonette, and substituting that word, they sing as before. Each child tries to be ready with the name of some favorite flower, and the game may close when each child's flower has been "found."

A game in which the children can run is always a favorite. "Fox" is another ring play so easy that the smaller children can play it without help. One of the children, "Fox," stays outside the ring and slyly slaps the shoulder of one of the children. "Fox" runs to the left, the child to the right. They meet, pass each other, going at full speed around the ring. The one who gets back to the "den" (the place in the ring where the child was standing) may hold that place, and the other must be the fox and try a race with some other child.

"Shakers" is another game similar in kind, but calling for less activity on the part of players. Children of all ages alike enjoy this exercise. A ring is formed including the entire company. The leader explains the game somewhat, and begins singing, adapting the words to the descending musical scale:

"I put my right hand in (toward the center of the ring),
I put my right hand out (turn body square about and thrust arm out),
I give my right hand shake, shake, shake (suiting action to words),
And I turn myself about (turn square about to face center of ring)."

Then the action goes on:

"I put my left hand in,
I put my left hand out,
I give my left hand shake, shake, shake,
And I turn myself about."

Succeeding verses change as follows: "I put my two hands in," then "my right foot," "my left foot," "my two feet" (jumping) one after the other. This is a pleasant go-to-bed game for small children.

Children delight in action that represents different kinds of labor. They are naturally imitative, and the leader needs but to start the different movements and the little people will at once join in. Take the different movements of the haymaker as an illustration. He swings the scythe, he tosses the hay in spreading, he rakes it, he sits down to rest, he eats his lunch, he drinks cool milk, he takes a noon nap, he wakes up, pitches the hay upon the cart, he calls haw, haw, haw! gee, gee, gee! to the oxen, he swings a whip, and when the loads are all in he claps his hands for joy. Each motion the children can imitate, and they do this, keeping time to music.

Frank H. Sweet.

—Chicago Record-Herald

WHY THE ROBIN'S BREAST IS RED

Robin Redbreast did not always have a surname. An old legend tells us how it came to be applied to him. A certain tribe of Indians had a form of worship in which a sacred fire was kept burning continually. One day the keeper of the sacred fire for some reason departed from the camp, leaving his trust to the care of his little son. This little son had an enemy, in the form of a large bear, that had for a long time tried to injure him.

"Now," thought Bruin, "is my chance." All day the little boy kept the flame burning brightly, but as night drew on he grew drowsy, and at last, in spite of his efforts to stay awake, sleep overcame him.

Then came in the crafty enemy, and with his huge paw put out the fire—all but one tiny spark.

But though the little boy had an enemy, he had also a friend—a little brown bird that he had once befriended in time of need. When the little robin saw Bruin's wicked deed he flew to the fire, and balancing his little body above the spark, beat his wings until a tiny flame arose from the sparks; and the flame rising higher and higher, the fire was soon as bright as before. The reflection of the flame, however, dyed the bird's breast a brilliant crimson. Since that time he has been called Robin Redbreast, and his little red breast is a lasting monument to his fidelity and love for one who had done him a kindness.—Miss Georgia Payne, in Children's Visitor.

THE DOG KNEW

Edwin Landseer, the great animal-painter, not only loved every dog he saw, but there seemed to be a clear understanding between this great-hearted man and the creatures he loved to paint. The following incident, told by a friend, is interesting:

"Queen Victoria once asked him how it was that he gained this knowledge and understanding.

"'By peeping into their hearts, ma'am,' was his answer.

"I remember once being wonderfully struck with the mesmeric attractions he possessed with them. A large party of his friends were with him at his house in St. John's Wood; his servant opened the door, and three or four dogs rushed in, one a very fierce-looking mastiff. We ladies recoiled, but there was no fear; the creature bounded up to Landseer, and treated him like an old friend, with most expansive demonstrations of delight. Some one remarking how fond the dog seemed of him, he said, 'I never saw it before in my life.'"—Our Dumb Animals.

The truth which bears a semblance of a lie
Should never pass the lips, if possible;
Though crime be absent, still disgrace is nigh.

—Dante.

The Family Physician

By ROBERT B. HOUSE, M.D.

In severe, crushing wounds of the hands or feet it is never advisable to remove at once any loose shreds of tissues or badly mangled fingers and toes. Place the injured member in a large, wet dressing, after thoroughly washing it and stopping the bleeding. This will often enable the surgeon to save important parts that might at first have been sacrificed.

Conservative physicians have maintained since first the germ theory of disease became popular that the man counted for more than the germ, and Dr. A. C. Latham, addressing the anatomy class of Cambridge University, England, on "Nature's Weapons Against Disease," inclined to this view. He pointed out that what was necessary was to increase man's natural resistance, and urged that sunlight and air were remedies of great therapeutic value.

In cases of severe burns of the body, and particularly in children, the removal of clothing or of temporary dressing put on by the family is often very painful. If they are first placed in a tubful of warm water, to which a little salt has been added, the adherent fabrics may be more easily and painlessly removed. In many cases anæsthesia is to be employed. In adults suffering from bad burns, morphine should be administered hypodermically, and in instances where the pain is great they can stand pretty large doses.

Boric acid is usually considered a harmless preservative and an antiseptic that can be used fearlessly as a nose and mouth wash. It should be borne in mind, however, that the drug has a cumulative effect, and brings about insidious, but serious, changes in metabolism. It checks the absorption of fat and proteid material from the intestines, and causes increased elimination of water. The German government has forbidden its use in the preservation of foods, and the public should exercise caution against its abuse.

WORTH TRYING

People who suffer from tired eyes—and who does not at times?—may be glad to try a French author's accidentally discovered remedy.

One night, when engaged in writing an article, his eyes gave out before he could finish, and he was compelled to stop. So, turning from his unfinished manuscript, his eyes fell upon some scraps of colored silk that his wife had been using for patch-work. These gay colors had a peculiar attraction for his wearied optics. On resuming his work after gazing at them for several minutes, he found his eyes quite fresh. After several experiments, he surrounded his ink-stand with brilliantly colored striped silk material that his eyes must rest on every time he dipped his pen in the ink. He found that this remedy brought him instant relief.—Boston Evening Transcript.

The Family Lawyer

By JUDGE WM. M. ROCKEL

Legal inquiries of general interest from our regular subscribers will be answered in this department free of charge. Querists desiring an immediate answer by mail should remit one dollar, addressed "Law Department," this office.

RIGHT OF STEPSON

C. B., Washington, writes: "A man marries a widow with one son five years old; she brought him nothing. He gave this son as good an education as the country schools afforded. She bore him two children, and after eleven years died. What claim has the stepson on his property?"

The stepson has no claim whatever.

HOW TO CHANGE A NAME

J. O. A., Illinois, wishes to know "how to have his name changed."

The laws of the various states provide different ways in which a name can be changed. Some states provide that it must be done by the act of the legislature, while others have laws permitting the courts to make the change.

LIABILITY OF PROPERTY GIVEN AWAY

F. C., Massachusetts, asks: "If A. gives his wife a piano, and A. owes B., can B. put an attachment on it for debt?"

Technically speaking, no; generally, yes. The law compels a man to be just before it will allow him to be generous, and he could not give away his property so as to defeat his honest debts.

WIDOW'S DOWER

M. R., Kentucky, writes: "A man dies leaving no will. He leaves two sons of age and a widow. The real estate is divided between the three. The widow gets her dower, and sells it. Can the sons claim the dower after her death, and get it?"

The widow's dower in her husband's real estate is only a life estate, and therefore what she sells will be only her life estate. After her death the land would belong to the sons.

HOW TO FIND WHETHER GRANDMOTHER HAD A WILL

F. N., Iowa, says: "I have been informed that my grandmother made a will, giving to me a certain amount of money when I was twenty-one years of age. I want to know how I can find if there was such a will."

If there was a will, you will probably find it probated in the county in which your grandmother lived at the time of her death, or in some county where she owned real estate.

PATENT AND CONSTITUTIONAL LAW

F. G. M., Oklahoma, writes: "1. A certain person has invented something and holds a patent for same. Can another person make and use something similar or just like it without the patentee's consent, even though the maker makes but one article and uses it himself? Is it not an infringement of patent, and is not the maker liable for damages? 2. The Constitution of the United States says: 'A well-regulated militia being necessary to the security of a free state, the right of the people to keep and to bear arms shall not be infringed.' How comes it, then, that people are prohibited from, and prosecuted and punished for, carrying arms, except for hunting, or in military service? Bad men are about, and a man or a woman is liable to arrest and punishment if found carrying arms, concealed or openly, though it be for protection."

1. Yes. 2. The provision of the United States Constitution above quoted is meant to apply to the right to bear arms in a military way, and not in case of brawl or fight. Under the power to preserve order, which is called a police power, and which resides in the legislature of each state, a reasonable restriction to bear arms can be made. However, it has been held that if a law were passed which would prohibit a person from wearing weapons openly, it would be unconstitutional.

LEASES

H. S., Idaho, writes: "A farm was let out in February, 1901, by written lease for one year from date. The grain was threshed out about the last of August, 1901. The man who hired it wished to try it again. So it was agreed that he should have it another year. There was no written agreement the second time. He plowed and sowed it in September, 1901, and it was threshed out in September, 1902. When would his time be out?"

The lease would expire February, 1903.

PARTITION FENCES

J. F., Ohio, wishes to know "the law as to line or division fences."

The law requires that the owners of adjoining lands shall each contribute equally to the keeping up and making of such fences, and if one of the parties refuses to do so, the other party has a right to have the township trustees divide the fence; then, if the party fails to build the part assigned to him, the trustees shall sell it out to the lowest bidder, and the costs of the same will be placed on the tax duplicate and collected in the same manner as other taxes.

TRESPASSING POULTRY

J. K., Ohio, asks: "What law is there regarding poultry running at large, committing depredations on adjoining fields, etc.?"

The statutes of Ohio apply the ordinary laws relating to trespassing animals to geese, but for other poultry no provision is made. Of course, the owner would be liable for any damages they might commit, but, as is the case in many instances, the owner owning no property above that which is exempt, nothing can be gotten in that direction. The temptation in such cases is to use the shot-gun method.

TRESPASSING POULTRY—DEVIL'S LANE

E. H., Illinois, writes: "A. makes a business of raising poultry. The road separates his poultry-yard from B.'s farm, and yet A.'s chickens, turkeys, ducks and geese have run in B.'s cornfield all the season. B. has told A. to keep them out, but he does not. Can A. be compelled to pay damages? Is B. justified in killing the fowls? ——A devil's lane has always been maintained between C.'s and D.'s farms. Recently C. closed the lane by joining his fence to D.'s. Can D. legally throw down the connection without notifying C.?"

A. would be liable for damages for injuries committed by his trespassing fowls. B. would not be justified in killing them (legally speaking), although it is sometimes practically the only remedy that B. would have.——The law generally in reference to line or partition fences is that if the adjoining landowner makes use of any fence for the purpose of inclosing his land, he thereby makes it a partition fence. C., however, would have no right to join his fence to D.'s unless D.'s fence was on the line; and if D. could tear down the fence made by C. without trespassing on C.'s lands, he would not be liable.

LIFE SAVERS

The Greatest Offer That Has Ever Been Made to the Sick Is Made to You Here, Now, To-day

A CURE FOR CONSUMPTION THAT CURES

WRITE FOR THE FREE REMEDIES

The above illustration represents a complete treatment and cure for Lung troubles and Consumption.

For Throat trouble. For Chest disease.

For any disease of any or all of your various organs of respiration.

You can get the four packages of medicine free, if you want them.

The diseases which the Dr. Slocum system of medicine has been perfected for the purpose of curing form a class by themselves of greater danger to humanity than almost any other class of diseases.

More deaths occur from Lung, Throat and Chest troubles than from all other diseases combined.

If not properly treated they lead along a certain path, at the end of which is the great white plague—Consumption.

Safety lies in their treatment with the above remedies.

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Do you catch cold easily? If so, you should have the remedies in the house. If you wait till Cold has caught you, he may have squeezed your life out before the medicine can reach you.

If you have a cold, even if ever so slight, do not hesitate, write at once for the free medicine.

Its quick receipt may save you from worse danger. No time will be lost on our side, we can assure you. We know too well the importance of prompt attention to coughs and colds.

These remedies are the latest achievement in medical pharmaceutics. They are a combination of four species which act in various ways, combining a perfected result on the entire system which had never been hoped for by the old school of medicine.

Please give heed to what we say, and write to-day.

It is not as if we asked you to buy. We do not. We offer you the medicine FREE. We press you, we plead with you to take it, because we know it will do you good.

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mentioning the FARM AND FIRESIDE, and the FOUR FREE REMEDIES will at once be sent you.

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Charcoal is a remedy that the more you take of it the better; it is not a drug at all, but simply absorbs the gases and impurities always present in the stomach and intestines, and carries them out of the system.

Charcoal sweetens the breath after smoking, drinking, or after eating onions and other odorous vegetables.

Charcoal effectually clears and improves the complexion, it whitens the teeth, and further acts as a natural and eminently safe cathartic.

It absorbs the injurious gases which collect in the stomach and bowels; it disinfects the mouth and throat from the poison of catarrh.

All druggists sell charcoal in one form or another, but probably the best charcoal and the most for the money is in Stuart's Absorbent Lozenges; they are composed of the finest powdered Willow charcoal and other harmless antiseptics in tablet form, or rather in the form of large, pleasant-tasting lozenges, the charcoal being mixed with honey.

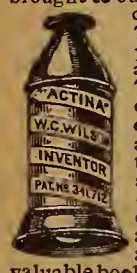
The daily use of these lozenges will soon tell in a much-improved condition of the general health, better complexion, sweeter breath and purer blood; and the beauty of it is that no possible harm can result from their continued use, but, on the contrary, great benefit.

A Buffalo physician, in speaking of the benefits of charcoal, says, "I advise Stuart's Absorbent Lozenges to all patients suffering from gas in stomach and bowels, and to clear the complexion and purify the breath, mouth and throat; I also believe the liver is greatly benefited by the daily use of them; they cost but twenty-five cents a box at drug-stores, and although in some sense a patent preparation, yet I believe I get more and better charcoal in Stuart's Absorbent Lozenges than in any of the ordinary charcoal tablets."

DEAFNESS CURED

By No Means Until "ACTINA" Was Discovered.

Ninety-five per cent of all cases of deafness brought to our attention is the result of chronic catarrh of the throat and middle ear. The inner ear cannot be reached by probing or spraying, hence the inability of aurists or physicians to cure. That there is a scientific cure for deafness and catarrh is demonstrated every day by the use of Actina. Actina also cures asthma, bronchitis, sore throat, weak lungs, colds and headache; all of which are directly or indirectly due to catarrh. Actina is sent on trial, postpaid. Call or write us about your case. We give advice free and positive proof of cures. A valuable book—Prof. Wilson's 100-page Dictionary of Disease, Free. Address New York & London Electric Association, Dept. 382, 929 Walnut Street, Kansas City, Mo.



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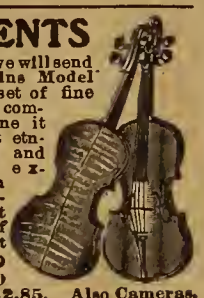

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Quality best. Guaranteed. $2. Book Free with all "Quakers." Write for our **New Catalogue**, special 60-Day offer. **Don't** miss it. Your last chance. **New plan, new prices to agents, salesmen, managers.** Wonderful sellers. Hustlers getting rich. Plenty territory. World M'f'g Co., 617 World Bldg., Cincinnati, O.

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If afflicted with weak eyes, use **Thompson's Eye Water**

Wit and Humor

DISAPPOINTED

Mr. Grump—"That confounded doctor charged me five dollars for telling me there was nothing wrong with me."

Mrs. Grump—"Outrageous!"

Mr. Grump—"Yes; if he had discovered dangerous symptoms I shouldn't have minded it in the least."

HIS MISTAKE

Beryl—"Yes, when Jack married her he thought she was an angel, but it wasn't long before he found out his mistake."

Sibyl—"Disappointed?"

Beryl—"I should say not. He found she was a good cook."

SURE TO NEED IT

Doctor—"I think you understand fully now the directions for these medicines, and this is for your dyspepsia."

Patient—"Why, I haven't dyspepsia, Doctor."

Doctor—"Oh, I know; but you will have it when you have taken those other medicines."—Tid-Bits.

SHE KNEW

In some cases the wife has fits when the husband steps aside a little; in others she gives 'em to him.

"What are you doing, Harry?"

"Opening a can of tomatoes."

"What are you opening it with?"

"A can-opener, of course. Do you think I am using my teeth?"

"No, dear; but I do know that you are not opening with prayer."

THE RETORT COURTEOUS

A jovial-looking man on a Jersey-City-to-Pittsburg train drank frequently and deeply from a quart bottle, which he courteously offered before each swig to his fellow-passengers, one of whom, an ascetic-looking man, refused the bottle with scorn, and eventually delivered a lecture on temperance, ending with, "You take awful chances in clouding your brain with alcohol. When you again come into possession of your normal senses you may be in the gutter, you may be in prison, you may be in eternal punishment!"

After the berths had been made up for the night, the jovial one staggered down the aisle, pulled aside the flap of that occupied by the lecturer, and asked, "Where youshe goin', ol' fel'r?"

"Pittsburg"—this very severely.

"Youshe didn't tip th' p-p-porter."

"I never do. It's a bad practice."

"You take awful chances, ol' fel'r, in losin' your wits not tippin' porter. When you wake up youshe may be in Pittsburg, youshe may be in Fort Wayne, youshe may be in Chi-Chi-Chicago!"—Philadelphia Times.

TRICK OF THE TRADE

The weary housekeeper walked into the store and paused beside the basket of eggs that bore the card labeled "Fresh this morning—thirty-eight cents."

"Give me a dozen of those eggs," she said. "I suppose you guarantee their freshness?"

"Well, no," said the storekeeper, hesitating a moment, "we wouldn't like to do that."

"But the card says 'Fresh this morning.'"

"Yes'm," the storekeeper admitted, reluctantly; "but you see we mean that it's the card that's fresh—not the eggs."—Cleveland Plain Dealer.

HIS DEFINITION

Kentucky teacher (of infant geography-class)—"Tommy Blood may tell us what a strait is."

Tommy Blood—"It's jis' the plain stuff 'thout nothin' in it."—Ohio State Journal.

PRICELESS TREASURES

Cobwigger—"Was there any money in this pocketbook you lost?"

Mrs. Cobwigger—"Money? That's all you sordid men think about. No, there wasn't any money; but it contained Bella's marriage-notice, a lock of mother's hair and all my lovely recipes."—Judge.

NOT PECULIAR TO CUBA

Appleton—"What do you raise in Cuba during the rainy season?"

Bannanio—"Oh, cain and umbrellas principally."—New York Sun.

HE FOUND OUT

A Frenchman was paying his first visit to London, and was walking with an English friend through Hyde Park on one of the many foggy metropolitan mornings.

"Fog! Ha, ha, mon fren," ejaculated the Frenchman; "now I understand vot you mean ven you say zat ze sun it nevaire set on ze English dominion. Ma foi, it does not rise."—Toledo Blade.

WHAT IS ONE MAN'S MEAT IS ANOTHER MAN'S POISON

I.

II.

III.

TRYING THEM

"What on earth has become o' the Jinks family, I wonder?"

"Why—what's the trouble with 'em?"

"All hit heavy by the new food craze. Went over the other mornin' an' found 'em at breakfast—grandmother eatin' Blank's Food, Jinks's wife tacklin' Dobb's Cereal an' the children divided between ten different brands."

"An' where was the old man?"

"In the stable, eatin' a bale o' hay."—Atlanta Constitution.

A DOUBLE STORY

Stories which illustrate the Scotch habit of thrift are constantly coming to light. There was one which greatly amused the late William Black, and which his biographer, Sir Wemyss Reid, says he was fond of relating. It is a story within a story, and although one part of it is old, the rest is new.

Somebody was telling a Scotchman a tale which he had just been reading of a certain Eastern potentate who, having taken offense at the doings of his grand vizier, had ordered him to be put to death. The victim knew he must die, but he wished to die comfortably. He was aware that his master's chief executioner was very proficient, and could dispatch his victims not only with swiftness, but with no appreciable suffering. Accordingly he sent for the executioner, and offered him a large sum of money on condition that he would put him to death without pain.

The executioner promised to do his best, and the grand vizier went to his doom in a frame of pious resignation. Kneeling to receive the fatal blow, he was conscious that the sword of the executioner was whirled about his head, but he felt nothing.

"How is this?" he said. "You undertook for a large sum of money to put me to death instantaneously and without pain, and instead of doing so you are only playing with me and prolonging my misery. Do your work quickly!"

Thereupon the executioner stepped up to the condemned man and offered him a pinch of snuff. The vizier took the pinch of snuff, and sneezed, and forthwith his head tumbled from his shoulders.

This is the story which, according to Mr. Black, was told to a fellow-countryman of his. The Scotchman listened, and at the end looked at the other inquiringly, and said, "Weel?"

"Well!" repeated the interlocutor. "What do you mean?"

"I'm waiting for the finish o' the stoory," said the Scot.

"But you've got the finish," said the other. "Don't you see? The executioner was so clever that he cut the fellow's neck in two without letting him feel it."

"Oh, aye. I kent that weel enaugh, but that's na the point. What I want to knaw is, did the execootioner gat the mooney?"—Youth's Companion.

ENTERPRISING MAN

"I tell you," said Mr. Fadoogus, "our grocer is a shrewd fellow. He is always on the lookout for schemes that will bring trade his way."

"He must be very successful," said Mr. Wunder.

"You bet he is! Why, he has the biggest rush right now on mince-meat that you ever saw. He is giving away a box of pepsin pills with each pound of it."—Judge.

BONNY PRINCE JACK

[CONTINUED FROM PAGE 15]

life-blood, lay Bonny Prince. An ugly, gapping wound in his neck told the whole gruesome story.

I saw that he was dying, and knelt beside him. As I held out my hand to him, he tried to "kiss" my fingers as he had often done in the past, but he was too weak to raise his head. Then, with the old-time cunning that even in death did not desert him, he raised his paw and placed it softly in my hand, giving a last feeble wag of his tail. Ah, the unutterable pathos of that moment! Such was his farewell, and his pretty expression of it made it all the more hard to bear. I raised his head from the floor, and gently pillowed it on my hand. And so he died, with the mute anguish of his big brown eyes turned full to mine. He was only a dog, but the sense of an inconsolable loss gripped at my heart when his life went out.

My wife caught my arm imploringly as I took a loaded weapon from the bureau drawer. As she caught the look on my face, she dropped her arm, knowing full well that she could not detain me. There was little mercy in my heart as I stole softly down the stairs.

I discovered my man in the dining-room, leisurely assorting my silver. A ray of light from his lantern directed my aim.

Perhaps it was God's mercy, after all, that my bullet shattered his arm instead of his heart. For three months he lay in the hospital, and then the penitentiary boarded him for three years longer. The judge sentenced him only upon his conviction on the charge of attempted burglary. The cruel murder of Bonny Prince was scarcely alluded to. How willingly would I have forfeited every ounce of metal in the house to have brought him back to his estate again.

Often, as I sit in the mellow glow of my study-lamp, I close my eyes, and again that dearly beloved form lies on the robe at my feet. Again I feel the silken softness of his ears beneath my touch, and his tail responds to my caress. Again his big brown eyes regard me with their loyal, loving light. Again—the vision fades—but the air seems filled with the springtime fragrance of the lilacs o'er his grave.

"Thy memory lasts both here and there,
And thou shalt live as long as we.
And after that—thou dost not care!
In us was all the world to thee."

CATALOGUES RECEIVED

Fleming Bros., Chicago, Ill. Catalogue of stock-remedies.

D. Brandt, Bremen, Ohio. Catalogue of small-fruit plants.

L. L. Olds, Clinton, Iowa. Sixteenth annual seed catalogue.

Johnson and Stokes, Philadelphia, Pa. Garden and farm annual.

Alexander Seed Company, Augusta, Ga. Illustrated seed catalogue.

James Vick's Sons, Rochester, N. Y. Vick's Garden and Floral Guide.

C. C. Shoemaker, Freeport, Ill. Shoemaker's poultry almanac for 1903.

C. E. Whitten's Nursery, Bridgman, Mich. Catalogue of small-fruit plants.

L. Templin & Sons, Calla, Ohio. Catalogue of Ideal seeds, bulbs, plants, etc.

A. I. Root Company, Medina, Ohio. Illustrated catalogue of bee-keepers' supplies.

A. W. Straub & Co., Philadelphia, Pa. Catalogue of the Quaker City grinding-mills.

The Geo. A. Sweet Nursery Company, Dansville, N. Y. Illustrated nursery catalogue.

D. Landreth & Sons, Philadelphia, Pa. Illustrated catalogue of garden, farm and flower seeds.

Cole's Seed Store, Pella, Iowa. Illustrated catalogue of garden, farm and flower seeds.

The Storrs and Harrison Company, Painesville, Ohio. Nursery, flower and seed catalogue.

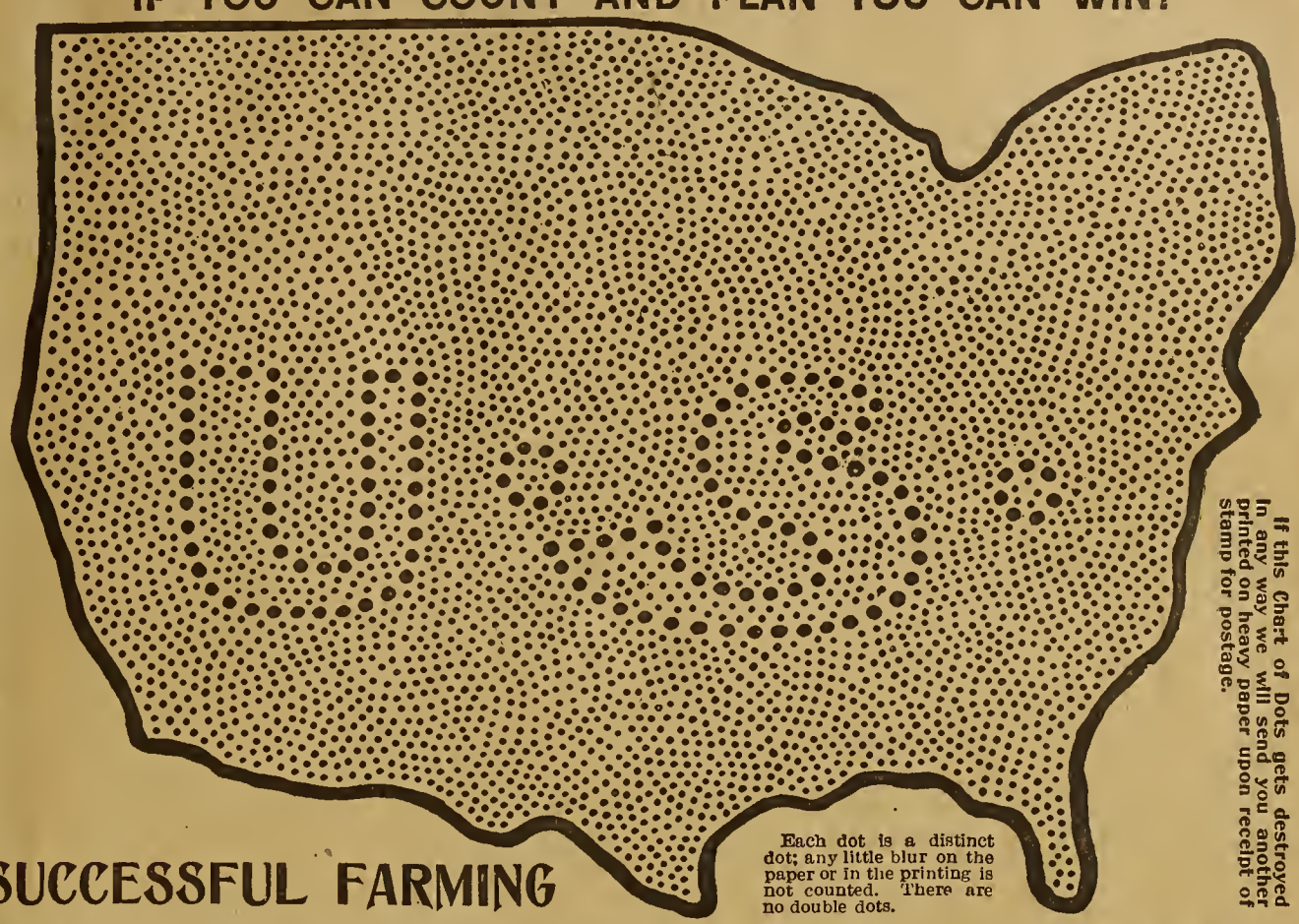
Green's Nursery Company, Rochester, N. Y. Illustrated catalogue of plants, vines and trees.

P. M. Sharples, West Chester, Pa. Illustrated circular of the Sharples Tubular cream-separator.

The Johnston Harvester Company, Batavia, N. Y. Illustrated catalogue of binders, headers, reapers, mowers, rakes, tedders, corn-binders, disk harrows and cultivators, spring-tooth harrows, etc.

$1,500.00 IN GRAND PRIZES FREE TWO $350.00 SCHILLER PIANOS.

IF YOU CAN COUNT AND PLAN YOU CAN WIN!



SUCCESSFUL FARMING

One of the best 32-page illustrated farm papers published, will give to those who count the dots in the above diagram correctly or nearest correctly, or in case of tie suggest best plan, **TWO $350.00 PIANOS AND $800.00 IN CASH.** Read offer carefully. **Greatest offer ever made! You may lose $500 by not entering contest.**

Two $350.00 Schiller Pianos as first prizes—one to a lady and one to a gentleman; second prize, $200.00 in cash; third prize, $100.00; fourth, $50.00; fifth, $25.00; next, $10.00; next, $5.00; the next twenty-five, $3.00 each; next thirty-five, $1.00 each; two special prizes of $150 each (see below). Surely out of this immense list you can win. If you can count and plan you can.

CONDITIONS—The contest is open to all. Subscription must be at 50 cents per year which pays for one year to **Successful Farming,** and entitles you to one count; $1.00 pays for two years and entitles you to three counts and makes you eligible for the grand **$150 Special Prizes.**

AWARDS WILL BE MADE AS FOLLOWS: The person giving correct or coming nearest the correct number, gets first prize, next nearest second prize, and so on down the list. **The Pianos** will be awarded to those who count correct or nearest correct—one to a lady, the other to a gentleman. If there should be a tie in the count for any prize it will be awarded to the one of those tying who suggests best plan of counting the dots. This tries your wits. Now get to work and think up the best scheme of counting them. It will earn you a piano. It is likely the person giving nearest the correct count will win as it is no easy matter to count these dots.

GRAND SPECIAL PRIZES—To the gentleman and lady winning the Pianos will be given an additional **Cash Prize** of $150.00 **each** if they have **three** advance subscription counts entered. That is have paid two years in advance to Successful Farming $1.00 for the two years. If you win the piano and have paid one year at 50 cents the judges will give you the piano only. If you win the piano and have **two years paid** you get **$150.00 extra.** It will pay all to have the three advance counts.

TWO ELEGANT $350.00 SCHILLER PIANOS FREE. These are fine prizes and in order to give ladies and gentlemen each an equal opportunity, one will go to a lady and one to a gentleman. Mark your subscription blank below stating whether you wish to enter "ladies' contest" or "gentleman's contest." Two different members of a family may compete, one in the ladies' and the other in the gentleman's contest, if they wish, but we will not send duplicate copies of Successful Farming to the same family. Fifty cents pays for one year's subscription to Successful Farming and entitles you to one count, or $1.00 pays for two years and entitles you to three counts, and by taking one on each side of what you think is the correct number you are more likely to win and **besides if you win you get the grand special prizes of $150 each, which you do not get if you only have one year paid in advance.** See above in regard to special prizes.

State Treasurer Gilbertson and Mayor Brenton Will Award Premiums.

To Whom It May Concern:

We know the publishers of SUCCESSFUL FARMING and can assure anybody interested that they will pay every premium they promise and treat every contestant fairly, showing no partiality. They have asked us to act as judges to award the prizes, and we will gladly act in that capacity.

G. S. Gilbertson, *Treas. of Iowa,*
J. M. Brenton, *Mayor of Des Moines.*

Publisher SUCCESSFUL FARMING, 228 Manhattan Bldg., Des Moines, Ia.

I enclose $..... for subscription to SUCCESSFUL FARMING and I wish to enter the.....(write ladies' or gents') Dot Contest. (If $1.00 is paid send three counts; if more than $1.00, send one additional count for each 50c over $1.00; if only 50c is paid send ONLY ONE count. The $150.00 special prizes go only to those having THREE or more counts entered.

My Count is: (1)..... (2)..... (3).....

Name.....
(Have paper addressed to head of the family)

P. O...... **State**.....

Remarks: My plan of counting is .....

Please Note—There is no element of chance, of guess work or lottery about this. It is a test of skill, pure and simple. If you can count the dots correctly you can win. The number of prizes is so large you are bound to hit it somewhere.

The Pianos—They are the well known Schiller. You may have any wood you wish, light or dark, Oak, Walnut or Mahogany. The Schiller is standard and we will not publish lengthy description. It depends entirely upon your efforts whether you get one of them and $150.00 in cash extra.

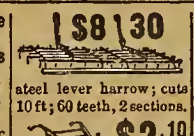
Key to Dots—To all who wish it and will write on separate sheet of paper "Send me key to dots," and sign your name and P. O. and enclose 10 cents to cover expenses, we will at close of contest send you a key to the dots showing just how many there are. Every contestant should order one, but it is not necessary unless you wish one. No key will be sent out until close of contest.

Contest closes April 30, 1903, but get your counts in at once, the earlier the better. We will add $25.00 to the $200 cash prize if you send your count in before March 1, 1903. It depends on you whether you get the $25.00 extra. To do it you must get your counts in at once. Any contestant having three advance subscription counts entered may enter additional counts at 25 cents each. Address,

SUCCESSFUL FARMING,
228 Manhattan Bldg, DES MOINES, IOWA

$18.50 for this team harness, cut from oak-tanned leather, traces 1½ in. 18 ft. lines: Hook & Territ pads. **98** styles to pick from. Single harness $4.45 to $21.00. Double, $10.00 to $45.00.

$18.60 Made in 8 sizes for this 12-16 all steel disc harrow; has genuine **Ladow** humpers. Dust proof oil tubes. **The Most Perfect Made.** We have other style discs for $15.25. We save you about 1-3 in price.



$8.30 steel lever harrow; cuts 10 ft; 60 teeth, 2 sections.

$2.10 Steel Beam Cultivator, plain, with 5 shovels.

$8 Mathews New Model garden drill, large size with 11 tools. **$4.75** for the **Gem** as drill only, same principle as above. If you want a garden tool, write us.

$28.75 **Calumet** check row planter with automatic reel and 80 rods wire. Never misses, drops in hills and drills. We challenge the world with this planter. Will ship on trial.

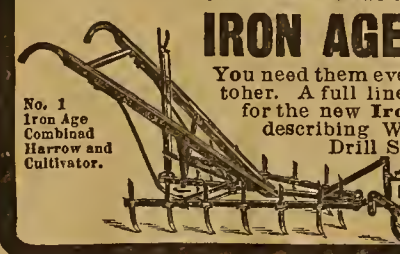
$9.95 for this 2 horse cultivator. Retails at $15 to $18. **$15.95** for riding cultivator. Seven styles, 25 combinations. **Most Wonderful Cultivator Bargains ever offered. Also Plows.**

50c for Triumph Corn planter. **$10.50** One-Horse Corn, Bean and Garden Seeder. Drops in hills and drills 12 acres a day. **80c** Crank Seeder, Sows wheat, oats and grass seed 4 to 10 acres an hour. Five other styles. Send for catalogue.

Send for Our Catalogue It has 432 pages, size 9x11 inches. Postage is 15c, but if you will cut this ad out and send it to us we will mail the catalog **FREE.** **MARVIN SMITH CO.,** 55-57-59 N. Jefferson St., CHICAGO, ILL.

Cultivation is swiftest, surest, easiest, cheapest, with

IRON AGE IMPLEMENTS



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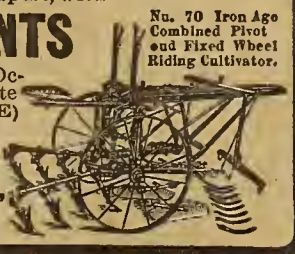

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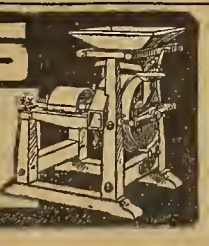
Flour Mill Builders, (Estab. 1851) 1210 Ky. Ave., Indianapolis, Ind.



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to wash as clean as can be done on the **washboard,** even to the wristbands and collar of the dirtiest shirt, and with much more ease. This applies to **Terriff's Perfect Washer,** which will be sent on trial at wholesale price. If not satisfactory, money will be refunded. **AGENTS WANTED.** For exclusive territory, terms and prices, write **PORTLAND MFG. CO.,** Box 27, Portland, Mich.

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Write for Rates and Folders.

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Grind and Shell, Cut Feed, Saw Wood, Pump Water, etc., any two at one operation with our **Double Action, Triple-Geared Mill,** With Power Attachment.

Like all the Scientific Grinders it crushes and grinds ear corn and all other grains rapidly, perfectly and cheaply. We make numerous other kinds of *Sweep and Power Grinders.* Don't buy a mill until you send for a free copy of our *New Catalogue 50. Mailed free.*

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does away entirely with all starting and running batteries, their annoyance and expense. No belt—no switch—no batteries. Can be attached to any engine now using batteries. Fully guaranteed; write for descriptive catalog.

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We give 10 days' free trial, no money in advance, on **Mann's New Model Bone Cutter.** You prove on your own premises that it turns easier and cuts faster than any other. Catalogue free.

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H-T-T published monthly, 52 pages. Tells all about Hunting, Trapping and Raw Furs. Sample copy 10 cents. HUNTER-TRADER-TRAPPER, Box 28, GALLIPOLIS, OHIO

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The cleanest, heaviest, best yielding oats are Michigan Northern Grown. Hammond's Nameless, Hammond's English Wonder, Czar of Russia and Michigan Wonder, the four best varieties. Rust proof, stiff straw, have yielded 220 bu. per acre. Catalog describing these oats and all other farm seeds free on request.

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RUPTURE SURE CURE at home book free Capt. W. A. Collings, Box 45, Watertown, N. Y.

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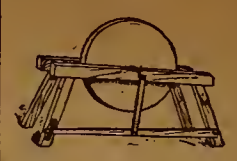
PRIZE PUZZLES

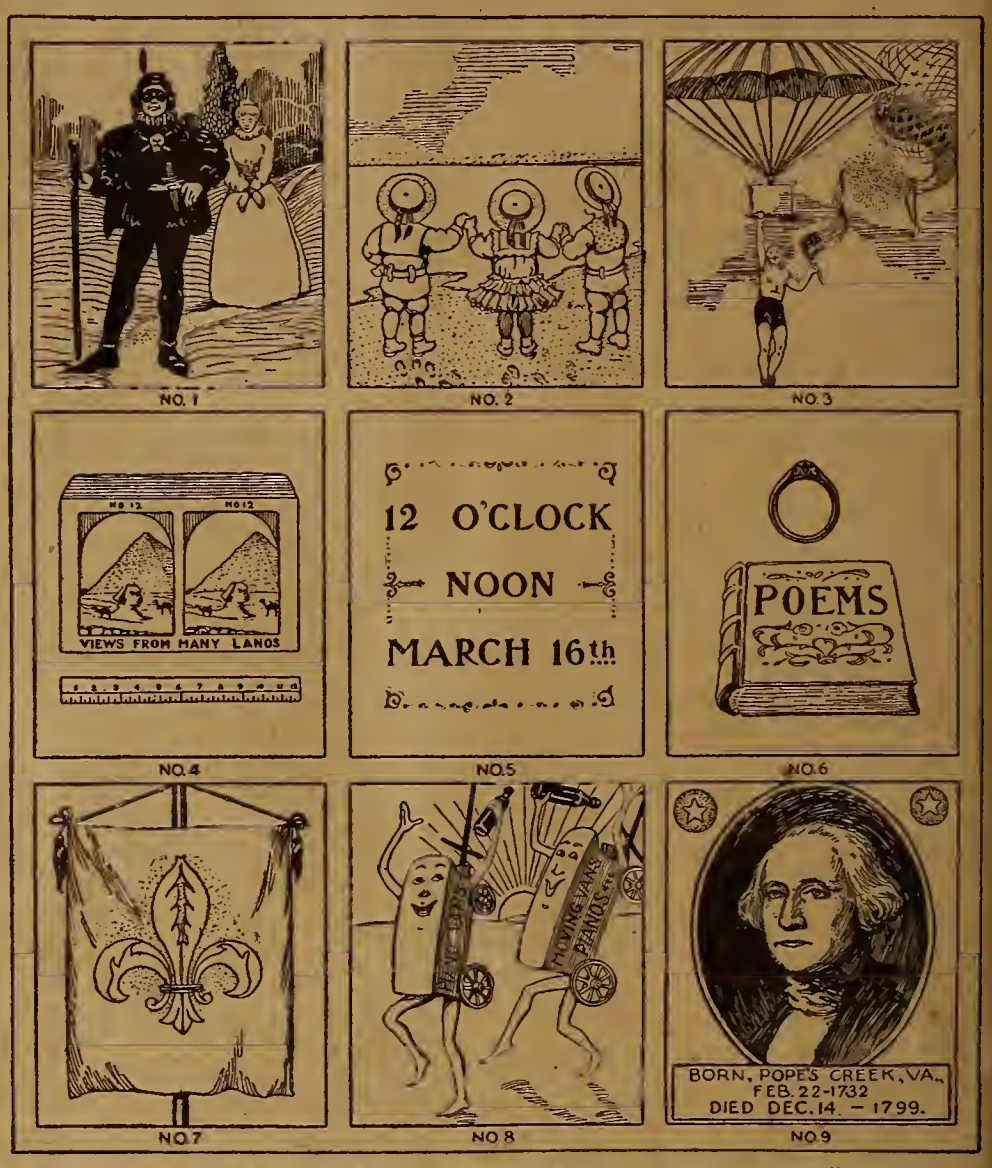
We Want to be Neighborly, and so Invite all of Our Readers to Use Our Grindstone. It Will Sharpen Your Wits, Quicken the Intellect, Afford Healthful Recreation, and Give Innocent Amusement and Entertainment.

Residents of Springfield, Ohio, are not allowed to enter the contests.



FARM AND FIRESIDE LITERARY PUZZLE

Ten Dollars Cash Offered in Five Prizes, as follows: The Person Sending the Best List of Titles and Authors Before March 1st Will Receive Five Dollars Cash. The Person Sending the Next Best List Will Receive Two Dollars Cash. The Three Persons Sending the Next Best Answers Will Each Receive One Dollar Cash



Each of these Pictures Represents Some Well-Known Book. No. 4, for Instance, is "Views Afoot," by Bayard Taylor. Send Answers to "Puzzle Editor," FARM AND FIRESIDE, Springfield, Ohio.

FIVE PROBLEMS

Five Dollars Cash Given in Prizes

Also a Valuable Prize for Each State and Territory —The Contest is Open to Everybody

THE PROBLEMS

1—A company engaged supper for a certain sum. But two of the party being absent, the others had to pay 10 cents each extra. What was the cost of supper. and the number of guests?

2—I bought a lot of eggs for 12 cents; had there been two more they would have cost 1 cent less per dozen. How many was in the lot?

3—The coat cost $4 more than the pants and vest. The pants cost $4 more than the vest. Had the suit included two pairs of pants it would have cost $51. What was the cost of the suit?

4—A drove of turkeys and sheep have 100 heads and feet. How many are there of each?

5—As I was going to St. Ives
I met seven old wives;
Each wife had a sack,
Each sack had a cat,
Each cat had a kitten.
Kittens, cats, sacks and wives—
How many in all, going to St. Ives?

Two dollars in cash will be given to the first person sending a complete list of correct answers to all of the five problems.

One dollar in cash will be given to each of the next three persons sending correct answers to all of the five problems.

A valuable book, "1,000 Ways to Make Money," will be given for the first complete list of correct answers received from each state and territory. This means a book for each of the forty-five states, one for each territory, and one for the District of Columbia, also one for Canada. The first complete and correct list from each state wins a prize, giving equal opportunity to all our readers, wherever located. In the states where the cash prizes are awarded, the prize book will be given to the person sending the second complete list of correct answers, so that one person will not receive two prizes.

Answers must reach this office not later than March 1, 1903, and must be addressed to the Puzzle Editor, FARM AND FIRESIDE, Springfield, Ohio.

Prize-Winners for the Weight Puzzle, in Issue of January 15th

The first prize for men, two dollars, is awarded to M. Louie Oliver, Niagara-on-the-Lake, Ontario, Canada.

The first prize for women, two dollars, is awarded to Emma B. Fulkerth, Lebanon, Ohio.

The first prize for boys, two dollars, is awarded to Thomas M. Pierce, Hammond, La.

The first prize for girls, two dollars, is awarded to Helen R. Fisher, Wilmington, Del.

A copy of our beautiful new picture, in ten bright colors. entitled "A Willing Captive," is awarded to each of the following ten persons:

A. W. Ellis, Delmar, Del
F. E. Weir, Ligonier, Ind.
C. I. Prouse, Laurel, Del.
Harry Reid, Jackson, Mich.
Clayton Stauffer, Richmond Center, Pa.
Bertha M. Williams, Rochester, N. Y.
Gracie Hussey, Lockland, Ohio.
John A. Lucas, Hamilton, Ont., Can.
H. Reinstedler, St. Louis, Mo.
J. V. Davis, Alexandria, Va.

225 CASH PRIZES **$5,000.00** 225 CASH PRIZES

TO BE GIVEN AWAY

In a Profit-Sharing Contest

The FARM AND FIRESIDE will give $5,000.00 (FIVE THOUSAND DOLLARS), to be distributed to such of its subscribers as may care to engage in an intellectual and profitable contest which will familiarize them with the Immigration of Foreigners into the United States.

? What will be the number of Immigrants to arrive in the United States in the year ending June, 1903, according to the regular report of the United States Government ?

To the two hundred and twenty-five persons making the nearest correct estimates on this there will be distributed the sum of $5,000.00 (Five Thousand Dollars), in the following proportions and under the following conditions:

To the one making the correct or nearest correct estimate of the number of Immigrants arriving in the United States in the Fiscal Year ending June, 1903	$2,500.00
To the second nearest	1,000.00
To the third nearest	500.00
To the fourth nearest	250.00
To the fifth nearest	100.00
To the sixth nearest	50.00
To the next four nearest, $25.00 each	100.00
To the next five nearest, $10.00 each	50.00
To the next ten nearest, $5.00 each	50.00
To the next 200 nearest, $2.00 each	400.00
In all 225 Cash Prizes, aggregating	$5,000.00

THE IMMIGRATION OF OTHER YEARS

For the Fiscal Year ending June of each year

1883 603,322	1888 546,889	1893 502,917	1898 229,299
1884 518,592	1889 444,427	1894 314,467	1899 311,715
1885 395,346	1890 455,302	1895 279,948	1900 448,572
1886 334,203	1891 560,319	1896 343,267	1901 487,918
1887 490,109	1892 623,084	1897 230,832	1902 648,743

Total for last twenty years, 8,769,271. Average each year, 438,463.

$500.00 EXTRA FOR EARLY ESTIMATES

If the correct or nearest correct estimate is received in either February or March, $500.00 will be added to the First Prize, so that the First Prize will be $3,000.00 instead of $2,500.00, if the estimate which secures the first prize is made in February or March.

First Prize will be $3,000.00

if the estimate which secures it is made in February or March.

Send your estimate at once, and you may be the fortunate person to secure Three Thousand Dollars without cost.

CONDITIONS

1. Fifty cents entitles you to the FARM AND FIRESIDE for one year and to one estimate. You may subscribe for as many as five years in advance, and each year's subscription will entitle you to one estimate.
2. You can send subscriptions at the rate of fifty cents for each year, with an estimate for each yearly subscription, and direct the estimate to be recorded in your name and the paper sent to a friend.
3. After an estimate has once been received and registered no changes will be permitted.
4. If there is a tie in the estimate of two or more persons for any one of the prizes, the amount thereof will be equally divided among them.
5. After the receipt of the Official Certificate from the proper Government Officials an impartial committee will award the prizes. Its award will be published in the FARM AND FIRESIDE, and the money will be distributed, and this shall be final and binding on all.

You pay nothing for the privilege of estimating. Simply subscribe at the regular price, 50 cents a year, and send your ESTIMATE FREE.

Blank for Subscription with Estimate

Date.....

Pub. FARM AND FIRESIDE, Springfield, Ohio:

With this I inclose 50 cents for one year's subscription to FARM AND FIRESIDE, and give below my estimate of the number of immigrants arriving in the United States in the Fiscal Year ending June, 1903. I subscribe to all the conditions of the offer as published.

My estimate is.....

Name.....

Post-office.....

County..... *State*.....

If you send more than one estimate, be sure to write each estimate on a separate piece of paper about the size of this blank, and write your name and address very plain and distinct.

Blank for Subscription with Estimate

Date.....

Pub. FARM AND FIRESIDE, Springfield, Ohio:

With this I inclose 50 cents for one year's subscription to FARM AND FIRESIDE, and give below my estimate of the number of immigrants arriving in the United States in the Fiscal Year ending June, 1903. I subscribe to all the conditions of the offer as published.

My estimate is.....

Name.....

Post-office.....

County..... *State*.....

If you send more than one estimate, be sure to write each estimate on a separate piece of paper about the size of this blank, and write your name and address very plain and distinct.

A Large Cash Commission will be paid Agents, Canvassers and Club-Raisers for obtaining subscriptions. Write for terms at once.

ESTIMATES FREE Instead of a cash commission, Agents and Club-Raisers will be allowed one estimate on each subscription, if they prefer it.

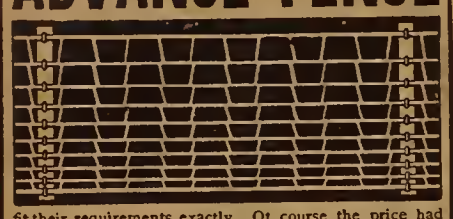
Address all communications to FARM AND FIRESIDE, Springfield, Ohio

(No one living in Springfield or Clark County, Ohio, will be permitted to send an estimate)

5,000 Farmers

ordered fence direct from our factory this year. Many of them had done so before and had found that our

ADVANCE FENCE



fit their requirements exactly. Of course the price had much to do with this. When a farmer can buy the best fence on the market at manufacturer's prices, he finds it a good and safe investment. It's so good you will order the second and third time. Your name and address on a postal card will bring circular and special prices. Have fence ready when you need it.

ADVANCE FENCE CO., 116 C St., Peoria, Ill.

From Factory to Farm—Our Way ⅓ Less

Improved "Blue Jay" Gang $47.50

Two 12-inch bottoms; two coulters and evener; light draft; easily handled; three levers; scours in any soil; only one made where points enter and leave gronnd first; has splendid reputation; **high-grade throughout.**

"Superior" End Gate Seeder $6.25

Sows 100 acres a day, all kinds grain, salt, ashes, lime, etc.; most complete, strongest and simplest made; can be adjusted to sow desired amounts per acre. **Our own make.**

Free Implement Catalogue

Prices will astonish you on high-grade goods. Selling to more farmers than any other house. Write at once for Implement Catalogue.

"All Right" Sulky 3-wheel Plow . . . $26.75
"Champion" 2-lever Disc Harrow 16.75
"Michigan" Spring-Tooth Harrow, 16 teeth 6.50
"Globe" All-Steel Land Roller 16.75
All prices free on board cars Chicago.

"Moline" Steel Lever $8.75

Sixty ½-in. teeth; each section has 5 "U" bars; strongly braced; teeth forged steel, big head; regular size; an extremely low price. Also with ⅝-inch teeth, $9.50.

Our Way

cuts out the middlemen's profits, travelers' and salesmen's expenses; loss from bad accounts; expense of giving long time, etc.

Big Saving on Standard Implements

$5.00 Buggy Offer Don't miss it. Ask Particulars. **Montgomery Ward & Co.** Michigan Ave. & Madison St. **Chicago**

HANDSOME FURS FREE

Money saved is money made and there is no use paying **$15.00 or $20.00** for **Furs** when you can get them for nothing. A woman should always look pretty and comfortable, and what can add more to beauty or comfort than **fine furs?** We give you the chance of a lifetime. We want to quickly introduce the Greatest Corn Cure on Earth, and if you will agree to sell **only 8** Boxes at 25 cents a box, write to-day and we will send them at once. It sells on sight. When sold you send us the money and we will send you soon as the money is received your own choice of a **Handsome Electric Seal Scarf,** very latest style,

MEASURING 50 INCHES LONG

and finished on the bottom with six large full tails; or a **Beautiful Muff,** handsomely lined and made right up to date. **Our furs are genuine** and **guaranteed,** and as nothing tops off a gown like handsome **furs,** every one will feel doubly repaid by our **valuable** present.

EMPIRE REMEDY CO. Dept. 54 E. **47 Warren St., N. Y. City.**

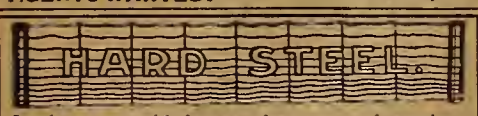
A FENCE SECURE

from within and without. It keeps its form in heat and cold. It does not unravel for all wires are continuous. Extra strong at top and bottom. A fence to meet all needs, handsome, strong, permanent, easily and quickly built. 18 to 54 inch heights. It is suited to every farm want—all kinds of stock. Catalogue free.

CUYAHOGA WIRE & FENCE CO., Dept. F, Cuyahoga Falls, O.

IWANS' Patent AUGER For Fence, Telegraph and Telephone Post Holes, Wells, Prospecting, etc. Price $1.25

SERRATED HAY KNIFE fastest and easiest cutter in the world. Show this to your dealer or address IWAN BROS., Dept. H Streator, Ill. AGENTS WANTED.



Look at our old fences after years of service; our new ones will stand just as well, because every part is Hard Steel. Send for catalogue.

The Hard Steel Wire Fence Company Cuyahoga Falls, Ohio

THE BEST FENCE

Can be made at the actual cost of wire. Over 100 Styles, and 50 to 70 rods per day, Horse-high, Bull-strong, Pig and Chicken-tight.

THE DUPLEX MACHINE makes it. The Machine is Automatic, simple in construction, runs easy, works rapidly. **Sent on Trial.** Plain, barb wire and Gates at wholesale prices. Catalog free.

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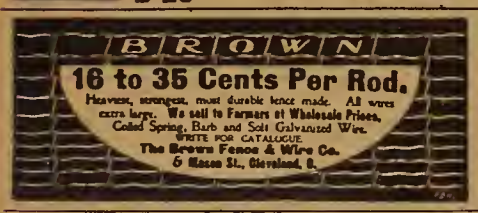


for this top buggy, piano body 20, 22 or 24 in. wide. seat has solid panel spring back. Wheels, choice of height and size, 3 or 4 bow top. Boot, storm apron, shafts and anti-rattlers.

45 styles top buggies illustrated with large cuts fully described in catalog.

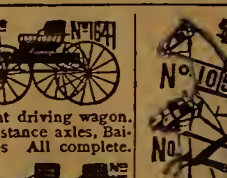
Extension top surrey, has large full size body, wide roomy seats with solid panel spring backs and cushions. Axles 1 1-16 in. Lamps and fenders extra. **Every vehicle guaranteed for two full years.**

22 other styles surreys in our big catalogue.

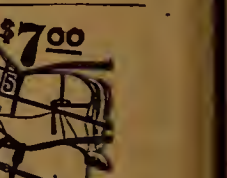
For this top buggy with **Guaranteed Rubber Tires,** piano body, roomy seat, solid panel spring back and spring cushion, 3 or 4 bow top. **The Most Wonderful Bargain** in a guaranteed rubber tired buggy ever offered. **Write for free catalogue.** It has large illustrations and full descriptions.

For this large, roomy phaeton, just what you want for solid comfort, wide, roomy spring cushion, solid panel spring back 23 in. high. Trimmed with heavy imported all wool broadcloth. Full patent leather fenders, large lamps, long distance axles. Retails for nearly twice our price.

For this high arched axle, low wheel, **Guaranteed Rubber Tired** driving wagon, open head springs, long distance axles, Bradley couplers, Bailey loops, stick seat, rubber padded steps. Trimming fine whipcord or broadcloth. 21 other styles. **Don't buy until you see our catalogue and most wonderful offers.**



Stick seat driving wagon. Long distance axles, Bailey loops All complete.



Platform spring wagon, 7 ft. body, heavy gear and wheels; 12 other styles spring wagons in catalog.

No. 105. Single harness, Nickel or Im. rubber trim. $7.00. No. 190. Dbl. harness, traces 1½ in. $14.60 98 styles shown in Catalogue.

SEND FOR OUR CATALOG. It illustrates and fully describes every kind of a vehicle and harness made. Cut this ad out and mail to us and we will mail the catalogue FREE. **MARVIN SMITH CO.,** 55-57-59 N. Jefferson St., CHICAGO, ILL.

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FREIGHT CHARGES PAID BY US

Strictly new, perfect, Semi-Hardened Steel Sheets, 2 feet wide, 6 feet long. The best Roofing, Siding or Ceiling you can use. No experience necessary to lay it. An ordinary hammer or hatchet the only tools you need. We furnish nails free and paint roofing two sides. Comes either flat, corrugated or "V" crimped. Delivered free of all charges to all points in the U. S. east of the Mississippi River and North of the Ohio River

AT $2.25 PER SQUARE

Prices to other points on application. A square means 100 square feet. Write for free Catalogue No. 34.

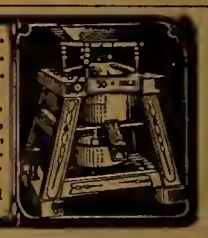
CHICAGO HOUSE WRECKING CO., W. 35th and Iron Sts., Chicago

DeLOACH SAW MILLS ARE BEST.

The Price is Right Too. Known the World Over.

FARMERS' $125 SAW MILL

Cuts 2000 Feet Lumber a day with only 4 h. p. DeLoach Variable Feed Saw Mills, 4 to 100 h. p., any price. DeLoach Mill Machinery, Planers, Shingle, Lath and Corn Mills, Water Wheels, etc. DeLoach Mill Mfg. Co., Box 800 Atlanta, Ga. (Branch, 120 Liberty St., New York.) Handsome Catalogue Free if you cut this out and give name of paper.



FENCE! ***STRONGEST MADE.*** Bull-strong. Chicken-tight. Sold to the Farmer at Wholesale Prices. Fully Warranted. Catalog Free. COILED SPRING FENCE CO., Box 30, Winchester, Indiana, U. S. A.

THIS WILL COST YOU NO MONEY.

56 PIECES FREE!

Every person answering this advertisement can get a **handsomely decorated set ABSOLUTELY FREE.** We mean it. A straightforward, honest offer made by an old established and reliable house to advertise its business, for everybody to accept. ☞ Remember, every one can have their choice of a **Breakfast, Dinner** or **Tea Set.** Each set consists of 56 pieces, full size for family use. Name selection and decoration wanted—Blue, Brown, Pink, Green or Rococo. We will ask you to do us a slight favor in return. It will **COST YOU NO MONEY** and will take not over an hour's time; you will be put to no annoyance, inconvenience or trouble. All sets are carefully boxed and packed at our expense—and safe delivery is guaranteed. No one is barred out—we positively will not go back on this no matter what it costs us. ☞ Don't pay out your money for dishes when we give you your choice of such **beautiful ornamented sets FREE.** Send at once your full name, post-office address and nearest **EXPRESS** or **FREIGHT OFFICE;** state which will reach you quickest. Address: **C. H. LEWIS, Supply Agent, 1916 Park Avenue, New York, Dept. 80.**

An Opportunity to Get $3,000.00 Without Cost. See Page 23.

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Vol. XXVI. No. 11 EASTERN EDITION MARCH 1, 1903 TERMS { 50 CENTS A YEAR 24 NUMBERS

Yard Ornaments

By WALTER E. ANDREWS

"SAY, Hank, what on earth are you doin' with that old birch-bark canoe?" asked Deacon Pepperton one morning, as he watched Mr. Peters pose the canoe on the lawn and then shovel dirt into it from a wheelbarrow.

"Goin' to make a lawn ornament o' it," replied Hank, briskly plying his shovel.

"It'd make better kindlin'-wood," grunted the Deacon.

"Mebbe so—mebbe." As he spoke, Hank calmly shoveled in more dirt, and smiled pleasantly at his neighbor.

"What a lot o' time some folks waste a-fussin' 'round their yards," casually remarked the Deacon after a pause. "I ain't got time fer that sort o' thing myself."

"I never heard anybody accuse you o' such 'wastefulness,' Deacon."

"No, sir-ee!"—proudly inflating his chest—"you never did."

"An' I never will, eh?" added Hank, quietly, as he leaned on his spade and looked his neighbor squarely in the eyes.

The Deacon fidgeted and began to feel uncomfortable. Somehow Hank's eyes were very clear that morning; looking into them seemed to bring an unpleasant realization that there are different kinds of opinions in this world.

"Well, I must be goin', Hank."

"Good-mornin', Deacon," and whistling softly to himself, Mr. Peters shoveled the last spadeful of dirt into the canoe.

The weeks flew by. Hank's canoe bravely rode the storm of public criticism and ridicule, and emerged triumphant, loaded down with a mass of red geraniums bordered with white candytuft.

Passers-by on the road stopped to admire, and the editor of the local paper, happening to see the flower-laden canoe, was inspired to write an article on "Yard Ornamentation," citing Mr. Peters' yard as an example of what could be done along that line.

The Deacon read the article, and sniffed disdainfully. His wife read it, and joined in the sniff. Then she went into the kitchen and resumed her work, while the Deacon shuffled to the barn, hitched up the horse, and drove to town. As he passed Peters' yard he drove very slowly, so as to have a good look at the canoe. It certainly did look attractive—he had to admit that. And somehow, now that he happened to think of it, there was something wonderfully pleasing about the entire yard. It had a cozy, homelike, tasty look that no other yard in the neighborhood seemed to have. The trees shaded the house "just right," the grass seemed to slope precisely as it should, and the walks and vines and flowers appeared to "happen exactly where they ought to be."

The horse jogged on, and the Deacon was soon able to obtain a view of the south side of Hank's house.

THE ROSE-BUSH BY THE WINDOW

"That 'ere rose-bush nestlin' by the double winder ain't a bad idee," mused the Deacon, critically. "It kind o' climbs up an' 'round as if it knew just how to make itself look the prettiest! I s'pose Hank trained it that way. My! I never see such a feller for fussin'. The house looks better, too, since Hank fixed it over an' built it larger. But how he gits time to do carpentry-work an' farmin' an' flower-gardenin' is more'n I know. I can never git time to do such things."

All the way to town the Deacon was thoughtful. But nevertheless he spent an hour talking politics in the post-office, and another hour "swapping stories" in the grocery-store; then he jogged homeward with half a pound of tea and a quarter's worth of sugar safely stored away under the seat. As he came to the Peters' home he saw Mr. Peters hard at work fixing the front gate and the yard fence, and decided to stop and talk with him awhile.

"Hello, Hank! Whoa, Bess!"

"How are you, Deacon?"

"Fust-rate. Say! that canoe o' yourn ain't so bad, after all. Where'd you git the idee?"

"Just thought o' it, I guess," replied Hank, modestly. "Been to town?" he added, to change the subject.

"Yes. Come to think o' it, seems to me I don't see you in town very often, neighbor."

"No," said Hank; "I haven't time."

"But don't you run out o' things?"

"Not often. I buy in quantity, which saves both expense and time. I've got something else to do besides chasin' after a quarter's worth o' sugar every few days."

The Deacon blushed as he thought of a small package under the seat.

Mr. Peters, not intending to be personal, and not knowing that he was treading on delicate ground, continued, "I used to know a farmer who wasted two half-days every week goin' to town after a little scoop o' tea an' a handful o' sugar."

"You did, eh? Well, I guess I'll have to be goin', Hank. Gee up, Bess! Gee up!"

INSIGNIFICANT EXISTENCE

There are a number of us creep
Into this world to eat and sleep;
And know no reason why we're born,
But only to consume the corn,
Devour the cattle, fowl and fish,
And leave behind an empty dish.
The crows and ravens do the same—
Unlucky birds of hateful name;
Ravens or crows might fill their place,
And swallows corn and carcasses,
Then if their tombstones, when they die,
Ben't taught to flatter and to lie,
There's nothing better will be said
Than that "they've eat up all their bread,
Drunk up their drink, and gone to bed."

—Isaac Watts.

CANOE CARGO OF FLOWERS

THE FRONT WALK

FARM AND FIRESIDE

PUBLISHED BY

THE CROWELL PUBLISHING CO.

OFFICES:

147 Nassau St. NEW YORK CITY — SPRINGFIELD OHIO — 204 Dearborn St. CHICAGO

Subscriptions and all business letters may be addressed to "FARM AND FIRESIDE," at either one of the above-mentioned offices; letters for the Editor should be marked "EDITOR."

ENTERED AT THE POST-OFFICE AT SPRINGFIELD, OHIO, AS SECOND-CLASS MAIL MATTER

TERMS OF SUBSCRIPTION

One Year (24 Numbers) . . . . . 50 Cents
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The above rates include the payment of postage by us. All subscriptions commence with the issue on press when the order is received.

Subscribers receive this paper twice a month, which is twice as often as most other farm and poultry journals are issued.

Payment, when sent by mail, should be made in Express or Post-office Money-orders, Bank Checks or Drafts. *When neither of these can be procured*, send the money in a registered letter. All postmasters are required to register letters whenever requested to do so. *Do not send checks on banks in small towns.*

Silver, when sent through the mail, should be carefully wrapped in cloth or strong paper, so as not to wear a hole through the envelope and get lost.

Postage-stamps will be received in payment for subscriptions in sums less than one dollar, if for every 25 cents in stamps you add one one-cent stamp extra, as we must sell postage-stamps at a loss.

The date on the "yellow label" shows the time to which each subscriber has paid. Thus: Mar1903 means that the subscription is paid up to March, 1903; Apr1903, to April, 1903, and so on.

When money is received, the date will be changed within four weeks, so that the label will answer for a receipt.

When renewing your subscription do not fail to say it is a renewal. If all our subscribers will do this a great deal of trouble will be avoided. *Also give your name and initials just as now on the yellow address label; don't change it to some other member of the family; if the paper is now coming in your wife's name, sign her name, just as it is on label, to your letter of renewal.*

Discontinuances.—Subscribers wishing their paper discontinued should write us to that effect and pay up all arrearages. If this is not done, it is assumed that the subscriber wishes the paper continued and intends to pay when convenient.

Always name your post-office.

Mr. Greiner Says:

SPRAY NOTES.—Mr. Wilson, the president of the New York State Fruit-growers' Association, expressed at the Rochester meeting his preference for power over hand sprayers, giving as his reason that the former gives continuous service without tiring one or two men, and that a pressure of about sixty pounds can be obtained, which will throw a much finer spray than what we can expect to get by sprayers operated by hand. The most satisfactory nozzle for general use is the Vermorel.

APPLE-SCAB AND SPRAYING.—Last year I sprayed my apple-trees twice, and in some cases three times, liberally and thoroughly, but the apples were scabby just the same. What could have been the trouble? Did I not make my mixtures right? Was this experience a general one all over the country? From reports received I infer that it was. If that is true, it would lead to the suspicion that the stations, with their advice and assurance that thorough spraying is a protection, have simply been fooling us. And yet on the grounds of Cornell University, the state station at Geneva, and in other places I saw trees with magnificent, healthy foliage, all covered with the bluish stains of the Bordeaux mixture, apparently proving the usefulness of the spraying practice. What is the truth in this matter?

APPLE GROWING AND SELLING.—Mr. Alexander McNeil, who came from the Government Farm at Ottawa, Canada, to the Rochester meeting to tell about grading and packing apples for market, says he went into the city markets to find the apples with which to illustrate his talk. After experiencing considerable difficulty in finding even a few perfect specimens, while the trashy stuff was plentiful everywhere, he came to the conclusion that the matter of packing and grading is of comparatively minor importance, and that the first thing to do is to "grow" better apples. If we once have learned to produce perfect fruit rather than a lot of trash, we will have far less trouble to sell our crops at good prices. The box is the coming package for apples. It is easier to grade, easier to pack and easier to dispose of. It is only first-class fruit that is fit for boxing. At present we are not only handicapped by the poor quality of the average fruit, but also by the lack of skilled help in packing and grading. We are obliged to work with unskilled labor at present. The change has to come with the coming generation. The present generation are wedded to their old methods, and will continue to grow poor stuff. We must look to the young men to learn better things and to make the needed radical changes in our fruit business.

A MODEL HORTICULTURAL SOCIETY.—The old Western New York Horticultural Society held its annual meeting at Rochester in January as usual, and as usual it was business from the time the presiding officer's gavel called the meeting to order until the adjournment. No time is ever wasted during its meetings. Even the election of officers consumes but a very few minutes, and requires only the adoption of a committee's report. W. C. Barry has sometimes been accused of holding a dictatorship for life rather than an elective chairmanship, but the society evidently is flourishing under his masterful guidance, and with the help of a most efficient secretary, Mr. Hall, the Western New York Horticultural Society, in short, has become a model as a business society among similar bodies which are organized chiefly for educational aims and objects. The attendance regularly overruns the five-hundred-mark by a good deal, and any member who comes an hour later than the time set for the opening of the meeting invariably finds that he has already missed some important talk and discussion. No time is consumed with lengthy devotional exercises, with addresses of welcome and responses. There is no display of oratory, of wit or humor which is intended to amuse the crowd rather than for instruction and elevation, and no music. There is nothing except that which applies directly to the furtherance of the serious aims and objects of the society. In these respects it differs from many meetings of farmers and fruit-growers, and its example could be followed with benefit.

FARMERS'-INSTITUTE AND OTHER MEETINGS.—My friend Professor Massey, of North Carolina, in the "Practical Farmer" editorially criticizes the tendency of institute-managers "to pervert the purposes of an institute to the mere passing amusement of the crowd." He is not in favor of crowding the room with people who have no special interest in the development of the agriculture of the section, and to make a "sort of show and a hurrah of the whole thing." A little music may not be objectionable, especially if properly wedged in between heavier discussions, but "dialect recitations, addresses of welcome and responses, etc., take up time that could be more profitably used in the real work of the occasion." An institute is no place for men to show off oratory or to amuse a crowd with funny speeches or to pay mutual compliments, but "should be regarded as a school, and should advance in its methods from year to year, so that it will be a real means for the enlightenment of the farmers and their wives and the development of improved practices in farm and home."

MORE SPRAYING EXPERIENCES.—In his talk on recent spraying experiences, Prof. John Craig at Rochester stated it as his belief that the amounts of copper sulphate in the Bordeaux mixture might be gradually decreased with advantage as the season advances. The fact seems to be that the trend of the times has been rather in the direction of a reduction of the strength of Bordeaux mixture for all spraying purposes. The first formula (given by experts a dozen or fifteen years ago) called for six pounds of copper sulphate and four pounds of lime to about forty-four gallons of the mixture. In late years we have usually held to about four pounds each of copper sulphate and lime to forty or forty-five and up to fifty and more gallons of water. No systematic experiments, however, are on record to show the minimum amount of copper sulphate that might be used in a given quantity of Bordeaux mixture which would prove effective in the prevention of fungous diseases. One member told of having used three pounds of copper and lime to forty gallons of water apparently with good results. It is not impossible that even two pounds each of both ingredients to forty gallons of water may be fully sufficient. The less we have to use, the less expensive and the safer the application. If the season appears to be an unusually wet one, so that late sprayings may be thought advisable, I think I would use the proportion of two pounds of copper sulphate, three or four pounds of lime and forty gallons of water for the later sprayings, substituting the ammoniacal solution of copper carbonate, however, for sprayings later than July for winter apples.

WINTER TREATMENT.—I have observed that spraying or washing my grape-vines, posts and trellises thoroughly with strong fungicides, especially a saturated solution of iron sulphate (green copperas) or a rather strong solution of copper sulphate (bluestone), some time during April and while the wood is yet dormant, or at least before the leaf-buds have opened, has served to check some of the malignant grape-diseases in a very marked degree, and it has led me to the practice of spraying fruit-trees during the winter or early spring with the simple solution of copper sulphate. I have recommended it in these columns, and have practised it more or less. Prof. John Craig at various recent meetings where both of us were present also spoke in favor of the practice and theory. At Rochester the other day Professor Beach of the New York Experiment Station, while admitting that such treatment of the dormant wood will surely kill some of the fungus spores, yet declined to indorse it, as he thinks it would not pay. The later or protective sprayings have to be given anyway, and can be depended upon to do the work if thorough work is done in spraying. Where scale is present, and the trees are sprayed with crude petroleum, the object of destroying all the disease-spores that can be reached thereby is probably accomplished without additional spraying with copper sulphate, and the same is probably true where the newer salt-lime-sulphur wash is used in early spring. Copper sulphate, however, might be added to the latter, also, making the effect doubly sure. Professor Beach stated that an orchard near the station grounds infected with San Jose scale had once been thoroughly sprayed with the salt-lime-sulphur mixture in early spring, no other treatment being given afterward, and that it gave a crop of fruit remarkably free from scab and scale. The application was made before the leaves appeared.

Mr. Grundy Says:

COBURN'S ENCYCLOPEDIA.—Before me lies the thirteenth biennial report of the Kansas State Board of Agriculture. If I had the naming of this volume it would be "Coburn's Kansas Encyclopedia." It should make every Kansan feel proud of himself and of Kansas. From the boom-racked, grasshopper-scourged, drought-distressed spot of the dust-covered past she has risen with leaps and bounds in material wealth, until she now stands forth one of the brightest stars in the blue firmament of "Old Glory." Her progress in everything that makes for enduring prosperity has been, especially during the past decade, little short of marvelous, and her future is as bright as the morning star. The query that naturally arises in the mind of the onlooker is: What agency has brought about this transformation, this amazing development of her resources? Was it her statesmen, her politicians, her location or a change in her climate? Not that anybody knows of! It was brought about by the foresight and industry of the one man who saw and understood what was needed to revive her drooping industries and bring her to the front. The one man who sought out and gathered the knowledge the tillers of her soil needed, and gave it to them in a way they could not fail to understand. The one man who showed them how to make fifty blades of grass grow where one grew before; how to so plant and sow and till that the harvest should never-more be a complete failure; how to handle their grass and their grain so as to get the greatest profit out of it; how to breed and raise some of the finest cattle, horses, sheep, hogs and hens that the sun ever shone on. That man is F. D. Coburn, and the volume that lies on my desk is a specimen of his skilful, painstaking handiwork—the sort of work that has made the Kansas farmer the progressive soil-tiller and skilled stockman that he is and his state one of the foremost in the Union. It was a fortunate day for Kansas when Coburn decided to make her his home. He has been worth millions to her. But the secret of his great success is not hard to find. He has simply gathered the information that the Kansas farmers needed to make them successful, and given it to them—all of them—in a form they could easily and fully understand. He wrote for them, and talked to them as one of them, and they understood. He sought out the wide-awake, progressive, successful farmers of his state, and induced them to tell their fellows how they succeeded. He learned where that magnificent forage-plant, alfalfa, would do well, and told the farmers how to manage it. He told them where Kafir-corn should be planted instead of Indian corn. He taught them the value of sorghum and other forage-plants, and how to produce large quantities of the best of cattle and sheep food on land that had been condemned as worthless. These are the things that have sent Kansas so swiftly to the front during the past decade. Coburn did it.

SEED-CORN.—One thing that cannot be too earnestly urged upon farmers is the necessity of procuring thoroughly good, sound seed-corn. It is better to pay as high as two dollars a bushel for thoroughly good seed of a variety that is adapted to your locality than to accept as a gift something that is in the least doubtful in germinating or yielding qualities. I have known farmers to drive ten miles to get seed-corn of doubtful qualities at fifty cents a bushel rather than pay a dollar a bushel for first-class seed at a neighbor's. I well remember the sound berating one of my neighbors once gave another because he would not sell him at market price seed-corn which he had carefully selected in the fall and kept in the best manner over winter. Rather than pay three dollars for seed enough for sixteen acres, he picked it out of a neighbor's crib for ten cents a bushel over market price, and then crowed vociferously over his bargain. Planting was delayed by rains until quite late in the season, and then about one third of the "bargain" corn germinated. It was a large, late variety, and failed to come anywhere near maturing before frost, and the crop was a complete failure. For two dollars more than he paid for the seed he planted he would have had a good stand and a good yield of sound corn. In this matter, above all others, a farmer cannot be too careful. If for any reason he failed to save corn for seed last fall, he should now lose no time in procuring a supply from some thoroughly reliable source. If it must be procured of a seedsman, it should be bought on the ear rather than shelled; then one can judge about what he is getting. I would much prefer to buy of some reliable farmer near by, if it can be done. If one desires to change to another variety, it is best to buy about a bushel of it and grow it in a field by itself. By doing this one can judge whether it is pure and satisfactory or not. If it is, he can then select from the choicest all the seed he needs for another year. I have always advised the buying of only small lots of seed of "improved" varieties that one knows nothing about. If it proves good, one has all the seed he will need for another year; while if it is no better or not so good as the variety he has, the loss is very small. I have found that seed grown on strong, rich soil will give a better yield on thinner or lighter soil the first season it is planted than afterward, and I believe that it will pay farmers whose land is somewhat run down or naturally thin to buy their seed from some one whose soil is strong and rich

All Over the Farm

FARM THEORY AND PRACTICE

THE LABOR PROBLEM.—The most discouraging feature in the farming outlook is the inability to get farm help. We are learning that the most net profit in farming comes from thorough work, and in many localities the situation is such that we cannot get the help to do all the work that needs to be done. In past years there has been complaint that farm help was not efficient, the public works drawing so many of the most energetic men by the big wages they were able to pay; but to-day the trouble is that laborers of any sort and description are not in sufficient number in country districts to do the work that should be done. Some people who are in a position to do so are leaving their farms in the hands of others, and going to towns and villages to live, because they are tired of trying to farm without help. The greater number of us, however, cannot solve the problem in that way. We are farmers; our money is in our land, and our income must come from it.

In the first place, the men are not to be blamed for seeking the better wages of the factories and public works. They are trying to market their labor where they can get the best price for it, everything considered, and they would be blameworthy if they did not seek to do so. I do not think that all of them do consider everything, but are misled by the nominal high wages that are quickly eaten up by family expenses when living in town. Nor do some of them consider the disadvantages of taking themselves and families into congested districts where there are many undesirable influences. Those are personal and private considerations, however, and the men should do what their best judgment dictates. The result remains that the men go where wages are highest, and so it always will be.

Nor have we any ground for criticizing the corporations that attract our laborers from us by high wages. It is a good thing for the country that men are able to pay high wages. Employment at good wages means ability on the part of the masses to feed and clothe themselves well if they use their money aright, and every human being should have a chance at an abundance to eat and to wear. Nor is this benefit confined to the men who work. Their employment creates a good market for the products of the land, and the farmer does not find himself unable to sell what he has produced. A good labor-market makes a good food-market, and very directly a part of the benefit of the high wages paid by public works comes to the farmer through the markets.

All this does not satisfy the farmer who has land to be cropped and cannot get the needed help. It is easy to say that we should pay the high wages of the towns, and then we could hold the men. This may seem to some the solution of the problem, but practically it is not, because the prices of farm products will not justify the payment of much higher wages than we have been paying during the last two or three years. While there is a good demand for all we produce, the prices received for grain, vegetables and other products of the farm are not as high relatively as labor on the farm now is. There is a limit beyond which we cannot safely go in piling up expense on the production of farm crops.

It is one of the unfortunate facts of life for the farmer that his business is the last to respond in an era of advancing prices. There is a substantial reason for this that needs no discussion here. The price paid for labor in the towns is out of all proportion to the prices received on the farm for our crops, and for a time we must expect to see a large portion of energetic men attracted from country districts. There are just three things to do, as I see it—cut down the acreage of crops that require a large amount of human labor, depend a little more on labor-saving machinery, and try to have the land that we plow in such condition that we can afford to pay good wages for the work that is done upon it. It is unwise to plan for extensive cropping of land that is only medium in fertility when labor is scarce and high. It means a season of hard struggle, some worry, and no net profit. It is better to concentrate what labor one has on some land that will respond well, and to let other fields gain in fertility by natural means or to furnish what they will for live stock that will harvest it without expense. One can hardly pay too high wages for net profit on very productive land that is wisely handled. It is the other land that plays the mischief, because it demands a part of the time and labor without ability to make adequate returns. Bring to mind the farms of which you have knowledge, and figure on the acreage that is not very productive and that should be growing a sod or other crop for its own improvement. Letting this land lie in grass or seeding it with a manurial crop for itself, and concentrating the labor on the better land, would mean a more fertile farm for the future, probably as much net profit for the present, and a partial solution of the labor problem. All this does not apply to many farms, but it does apply to a vast number.

PLOW SOD EARLY.—We not only save time, but we increase our chances for a good crop in a dry year, when we break sod-land early in the spring. When we see the grass, clover or winter cover-crop growing in the early spring, there is always a desire to get as much growth as possible before turning it down, because we know that such a growth affords good plant-food when it rots. But it is a fact that early plowed land resists drought better than that plowed later. It is safest to turn the sod just as early in the spring as the soil will permit. Nothing can be worse for land than plowing when too wet; but when the soil is dry enough to crumble freely, the plow should start, and should be kept going. If the spring continues dry, there is time to get the soil settled so that moisture will rise from the subsoil; if the weather is wet, the planting is not made so late as it would be if the breaking must be done after the wet season. Where land has good drainage, spring rains can hardly pack sod-land so much that modern harrows will not put it in good condition very rapidly. Plow the sod-land early, especially this year, when labor is so scarce, and have that much heavy work out of the way. DAVID.

BUILDING UP

We hear and read a great deal about building up run-down farms and grading up herds and flocks, but not very much about building up the man, the character, the life. The man who buys a farm, or the young man seeking an avocation, asks, "Can I make a living here or at this?" The question "Can I make or grow or develop a life here?" does not seem to be suggested, but the most remarkable building up of a farm that has no collateral building up of a higher, nobler life for the builder is a very questionable success.

The young man has made a very poor choice of a business if he has merely "made a living" or even "made a fortune;" for what is the significance of money accumulated if there has not been ahead of it always a steady growth of a good life?

There is not a word in this against the ambition for material and financial success, but as more important in the materialistic tendencies of the times, my warmest plea for the fullest upreaching of purer lives and characters.

I know where there are fine and beautiful farms, modern homes, superior animals, improved machinery, most perfect settings for the noble lives of the ideal "country gentlemen;" but when in the modern houses one fails to find a life-growth commensurate with the farm-growth, he feels very much inclined to say, "For what shall it profit a man—" W. F. MCSPARRAN.

A SPRING MORNING ON THE FARM

THE FARMER AND HIS FORESTS

Two things will grow out of the present difficulties in the coal regions. One is a rapid destruction of old forests. The demand for fuel encourages every farmer to sell all he can. The slaughter of our forest-trees due to this will leave its marks for many years to come. Another sure result of the trouble will be the setting out of more forest-trees than we have witnessed in many years. Men are studying the question as never before. An estimate is being made of all the forests now in existence in this country, and prophecies are being made as to the length of time they may be expected to last.

But while the schools of forestry are studying this problem, every individual farmer should do his part toward keeping the forests of his own farm just as nearly intact as possible. This he may do by cutting only timber which has reached its best or has begun to decay. In every lease he gives he should have the clause "the party of the second part agrees not to cut any except dead, down or decaying timber for fuel during the term of this contract" inserted. He should see, too, that this bargain is kept. Again, every farmer should set out some trees every year. It is a most selfish and short-sighted policy for us to cut down the timber and leave coming generations to shift for themselves. Guard the forests. E. L. VINCENT.

NEWS NOTES

A good system of rotation on the farm is the one which includes a crop of "new ideas."

Hard work in farming is not necessarily good work; but right farming, as a rule, brings prosperity.

Keep it in mind that neither the potato nor the flax plant travel far for their food. Therefore both require a very rich, well-pulverized soil.

Doctor Jenkins of the Connecticut Experiment Station, in speaking of the new conditions which the farmer of to-day has to face, says: "It is the art of meeting competition in our home markets from lands scarcely known to our forefathers, the art of lessening our cost of production, of finding out just what the cost of production is, and the study of market conditions to decide what we can and cannot profitably raise."

The fact is daily becoming more apparent that special training in agriculture is an essential element of success.

It is a poor plan to work the hands to the neglect of the brain. Let the brain lead off, and better financial results will surely follow.

The annual consumption of nitrate of soda in the United States is steadily increasing. In 1900 it was one hundred and seventy-five thousand tons; in 1901, one hundred and ninety-two thousand tons, and in 1902, two hundred and twenty thousand tons. In the Central and Eastern states nitrate of soda and sulphate of ammonia are now deemed indispensable in progressive farming.

It is corn that enables this country to sell to Great Britain alone more than three hundred million dollars' worth of live animals, dressed beef and packed provisions annually from its production.

A well-thought-out plan for next summer's work will do much toward making the season's work a happier success. Better do most of the thinking and planning before the rush of summer's work. * * *

Gardening

By T. GREINER

GRATING HORSE-RADISH.—Several readers write me that they find a common sausage-cutter the best tool for grating (or rather grinding) horse-radish. The cutter should have a plate with small holes. The roots are thoroughly washed and cleaned, then run through the machine. I usually prepare my horse-radish in just this way.

SEED CATALOGUES.—Every mail now brings seed catalogues to my table. To judge from the appearance and make-up of those already on hand, it is plain that half-tone engravings (photographic reproductions) are taking more and more the place of fancy and fanciful pictures, so that the latter will soon be a thing of the past. Greater taste in the outside cover-page display and coloring is also being shown. Gregory's plain yellow cover, that acme of simplicity and modesty, gives place now to pictures and color designs, but without radical departure from the old style.

EARLY TURNIPS.—H. A. B., Brooklyn, Ohio, says his early turnips are invariably wormy, while the late ones are fine and clean. I think that it is often a rather difficult task to grow early turnips that are free from maggots. Usually they have a rather strong flavor, too. I seldom try to raise turnips early, although it can be done, and in some cases the crop can profitably be bunched for market. I would try to keep the maggots off by frequent applications direct to the growing plants of strong lime-water or solutions of muriate of potash. Put on enough so that the liquid will run down the plants and soak into the soil.

PRICE OF POTASH SALTS.—A reader asks about the usual price of muriate and sulphate of potash. I have usually bought my muriate at from forty-two dollars and fifty cents to forty-five dollars a ton. Sulphate costs about fifty dollars, but I have so little use for the latter, finding that the cheaper muriate fully answers my purposes, that I have not bought any sulphate for a number of years. There may be cases where sulphate is preferable—as, for instance, in growing tobacco, and possibly potatoes. In my own practice I find the muriate good enough even in potato-growing, especially if it is applied in the fall before, or for the clover which precedes the potato crop.

SWEET-CORN-SQUASH COMBINATION.—J. B., a Western reader, says he tried my plan of growing squashes (Chicago Warted Hubbard) in the early sweet-corn (Sheffield) patch, and got the largest crop he has ever grown. The gardeners in his neighborhood quit planting squashes the last few years on account of the striped bug. He had the market all his own way, selling his squashes at from two dollars and fifty cents to three dollars a dozen. By planting some odd place where the bugs were not in the habit of finding food, plants, melons, cucumbers and squashes may often be saved from attacks and give satisfactory crops without much effort on our part. The winter-squash crop last fall was very slim, and anything that looked like a Hubbard was in ready demand at high prices.

FAILURES IN CROPS.—Complaints about the failure of egg-plants, peppers and late-planted sweet-corn during the past season were not uncommon. I cannot remember a season which was more unfavorable than that of 1902 for all semi-tropical fruits, tomatoes included. I had only a few egg-plants, few peppers, and tomatoes and Lima beans were late, although abundant then. There is a disposition on the part of many who have made first trials with egg-plants or late-planted sweet-corn to draw hasty conclusions and give up further trials of such crops. One year's result is never a safe criterion. "If at first you don't succeed, try, try again," is a good rule in such cases. Next summer our egg-plants, peppers, melons, etc., may do better than ever, and give most satisfactory crops. I shall plant all such things with just that expectation and confidence.

FOR GREEN CABBAGE-WORM.—A lady reader in Atlanta, Ill., recommends sprinkling wheat-bran on the heads of the cabbages as one remedy, and a pinch of salt put on the heads after sundown as another. An "old friend" of the FARM AND FIRESIDE in Charlottesville, Va., suggests the use of buckwheat-flour, which the worms seem to like so well that they eat enough of it to kill them. The fact is that the green cabbage-worm is one of the easiest enemies to fight if prompt action is taken. Almost anything that is sticky or dusty or corrosive or poisonous will clear the cabbages of worms when profusely applied. A puff or so of tobacco-dust, insect-powder or dry wood-ashes is easily applied, and is quick in results. When you have a Knapsack sprayer you have another easy method of fighting the worms. Spray forcibly with tobacco-tea, kerosene emulsion or hot soap-suds, or possibly some other spray-liquids, and the worms will give you very little trouble for quite a considerable time.

SWEET-POTATOES FOR SEED.—How to keep vineless sweet-potatoes for seed is a query propounded by an Ohio subscriber. Northern-grown sweet-potatoes are difficult to winter over even under the most favorable conditions. In the first place, only perfect roots—free from any sign of disease and from any bruise or injury due to rough handling—should be selected for wintering. Packing in dry sand in barrels, and storing them in a frost-proof cellar or garret, may be tried. The amateur's best and safest way usually is to purchase the small supply of tubers which he needs from some one who makes a business of furnishing seed or plants in early spring. Then about April 15th make a good hotbed, and cover the manure with a couple of inches of sand, upon which the sweet-potatoes, previously cut into halves, may be placed close together without touching, cut side down. Then cover with four inches more of clean sand, and put on the sashes. Water and ventilate, and toward June 1st you will have plenty of slips to draw from the bed.

FOR MOLES IN THE GARDEN.—A reader in Van Wert, Ohio, complains of moles, with which his rich soil, situated inside the corporation, is overrun. He has tried poisoning them without getting rid of them. I have had enough experience with moles in loose, rich garden soil to know what a fearful nuisance they can make of themselves. Even for partial relief I think our friend must prepare for a long and stubborn fight. I doubt the efficacy of poisons. The only method by which the number of moles can be reduced, so far as known to me now, is trapping. Get half a dozen traps. You can find them at the hardware-stores. Most large seedsmen keep them, too. Examine them, and then use your own judgment in selecting traps. Or make a number of figure 4 dead-falls. If you are a skilful trapper you may have as good success with them as with factory-made traps. Keep the traps set, and do not let up as long as the moles are about. You may have to clean out your own patch and then catch the moles that come from neighbors' lands, but don't cease in your warfare until victory is yours.

HOTBED OPERATIONS.—A lady reader in Martinsburg, Neb., asks about hotbed-making. Questions how to make and operate hotbeds are frequently asked, yet the information is freely given in books on gardening, in seedsmen's catalogues, etc. Every reader of an agricultural paper should surely obtain a number of catalogues, anyway, and study them. The requirements of a hotbed are simple—first, a layer of heating horse-manure about two feet deep, either in a pit dug into a well-drained and well-protected spot to the depth of the manure, or directly upon the ground; second, upon this a box or frame covered with sash, and third, a four or five inch layer of good garden soil inside the frame, resting on the manure. Dry leaves gathered in the fall and stored away or used for bedding or in the hen-house make a most excellent addition to horse-manure, especially when the latter is wet rather than merely moist. Mix all well, and first let it come to a heat and mixing up once or twice more before putting in position for the hotbed. The manure should then be packed down rather solid, pains being taken to have it a trifle rounding in the center, as it usually settles there more than at the sides, and often leaves a depression. Put the soil on the manure, and make the surface fine and level, then sow the seeds as you would in open ground, and put the sashes on. Water as needed, and when mild, sunshiny days come, after the plants are up give air by raising the sashes.

Fruit-Growing

By S. B. GREEN

NUT CULTURE.—C. A., Albion, Idaho. It is quite likely that chestnuts and hickories will do well in the more favorable fruit sections of Idaho. I would suggest that you try not only the native chestnuts, but the Japanese kinds, and especially the Paragon, which is probably giving better satisfaction than any other variety. This is one that bears very large fruit. I do not know of any parties in Kansas who could supply you with nuts for planting, but would suggest that you send to C. G. Patten, Charles City, Iowa, and Elwanger & Barry, Rochester, N. Y. There has been much written on the subject of nut culture, but the best book on the subject is "Nut Culture in the United States," published by the Division of Pomology of the United States Department of Agriculture, Washington, D. C. I do not think that pecans would have much chance in your section, but would suggest that you can get some from northern Illinois.

APPLES FOR SOUTHERN OHIO.—A. S., Southern Ohio. Most of the varieties which you name have given good results in southern Ohio. The Gano is practically the same as Ben Davis, except that it is darker in color. I cannot see that there is any great difference in quality. However, it is vigorous, productive, and I am inclined to think that it and Ben Davis will probably prove more profitable for planting in your section than most any late variety you are liable to set out. At the same time it will not bring as high a price as apples of better quality, but will perhaps produce much more merchantable fruit than any other. Wagener is a variety that has grown in popularity each year, and is being planted over a wide range in the Central states, especially in Michigan. The same could be said of York Imperial. Salome is gaining in favor, and is extremely promising. Northwestern Greening originated in Wisconsin, where it does marvelously well in some sections. It is a very large, green fruit, and under good conditions will keep nearly through the winter. It is rather fickle about localities, and in many places is nearly a failure, but is well worth trying in all of the Western states. On account of its being so fickle I should not want to plant much of it in your section until it had been given a thorough trial. Mammoth Black Twig, Black Arkansas and Cooper's Market I am not sufficiently acquainted with to know how they will do in your section, and I should go slow about planting any of them. However, all of them are standard sorts, and I think will do well over a wide extent of country. Walker's Beauty I do not know.

APPLE SEEDLINGS—GRAFTING MULBERRY—GRAFTING PEACH.—W. E. D., Hillsboro, Ohio. You can set out your apple seedlings and top-work them successfully the same spring that they are set out, but in my experience the growth under such conditions has been so small that I prefer to allow them one year to become established before I top-work them. The small roots from old apple-trees may be used for stocks in root-grafting, and were formerly largely used for this purpose, but experience seems to show that seedling roots are healthier and give better results.——Mulberries should be grafted in the spring just as the buds start into growth. The method of inserting the scion under the bark of the stock seems most reliable.——Grafting is sometimes satisfactory for the peach-trees, but I think not in the Northern states; it is used to a considerable extent in some of the Southern states and in California. Budding seems to be much more successful with peaches in the North.

GIRDLED APPLE-TREES.—H. H., Winsted, Minn. I can hardly believe that all of your young apple-trees are girdled by having the bark removed entirely around the tree. I am inclined to think that there is some bark left that will make a connection between the roots and the top. If there is not, you will have great difficulty in saving them, and probably your best way in such a case would be to cut the trees off close to the top of the ground, and allow them to sprout and one sprout to grow; but do not do this until spring. Then you would have to make a new tree from the sprout which comes up. If, however, there are some patches of the inside bark left (and it does not matter even if the outside bark is destroyed), if you will cover them with grafting-wax and paper it will be the best treatment I know of. You can keep the rabbits from eating your trees by putting a woven-wire fence around them, or by smearing the trees with blood from a liver or something of that sort obtained from a butcher-shop; also by coating the trees with whitewash to which a little carbolic acid has been added. This will prevent the rabbits from gnawing the bark.

WOOD-ASHES—PRICE OF APPLE-TREES.—J. L. R., Santaclaus, Ind. The ashes from hard wood contains from three to five per cent of potash, which is the valuable material in it. It also contains 1.7 per cent of phosphoric acid, which is of some value as a fertilizer. Soft-wood ashes, especially ashes from pine, cedar, hemlock and similar woods, is practically of no value as a fertilizer, as it does not contain much potash or phosphoric acid. Ashes that has been leached has lost about all its potash, and is not of much practical value, and is so wet and heavy to handle that it is doubtful if it will ever pay to use it for a fertilizer. Good hardwood ashes is an excellent fertilizer for orchards and small fruit. From thirty to forty bushels of wood-ashes an acre is a heavy dressing. It is well known that potash and phosphoric acid give better results with fruit than any other of the minerals.——From thirty to fifty cents each for apple-trees of the common kinds is altogether too high, and I think by dealing directly with some good nursery you will get much better prices and have more satisfactory results than you will by dealing through any agent.

PLUMS DROPPING.—H. E. S., Oakhill, Ill. There might be several causes that would make your large purple plums drop off soon after blossoming. It might be due to lack of pollination, in which case no amount of spraying would do any good. This could only be corrected by the planting of other varieties near by. This cause I should not suspect in an orchard made up of mixed varieties. If the plums drop off because they are stung by the curculio, then catch these insects by spreading sheets under the trees, and jarring the trees early in the spring and until they disappear. This method would remedy most of this difficulty. If the cause is some fungous disease, then spraying with Bordeaux mixture would probably be helpful. If this is attempted, however, the first spraying should be given about three weeks before the trees start into growth. This will also have a tendency to prevent the fruit from rotting on the tree, which is a very common cause of injury. This material is made up of five pounds of lime, five pounds of sulphate of copper and fifty gallons of water. The best quality of lime should be used, which should be made into a milk of lime with a little water. The sulphate of copper should be dissolved in a wooden or earthen vessel, then it and the lime poured into the water at the same time. This will make a wash of a sky-blue color, which should be applied through a spray-pump. I am inclined to think that in your case the difficulty is lack of pollination, and if you will write me, giving the surroundings of the trees and the varieties of plums near by, perhaps I will be able to throw some light on the subject.

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best for all hand work. No continuous pumping. Compressed air runs it to spray ¼ acre of vines. Boy can carry and operate. All working and contact parts of brass. Long line of high grade sprayers for every purpose shown in Catalog K. It is FREE. Write at once if you want the agency.

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In the Field

THE LIRIODENDRON TULIPIFERA

As a specimen of our American forest-trees nothing surpasses in beauty the tulip-tree, or Liriodendron Tulipifera. The large, straight trunk towering above most of the surrounding trees lends a dignity to the woodlands not given by any of our other forest-trees.

Individual specimens from one hundred to one hundred and fifty feet tall, with trunks five or six feet in diameter, were not uncommon fifty or sixty years ago. In 1848 one such tree in central Indiana was sold for seventy-five cents. Now the lumber from such a tree would bring as many dollars.

The branches of the tulip-tree are short and small in proportion to the size of the trunk, giving it a pyramidal form, except the very old trees, which usually have spreading tops. The leaves are a dark green above and lighter underneath. They are very glossy, and the midribs stand out prominently on the under side. The leaves are large and curiously cut off at the outer end, making them saddle-shaped. The leaf is supported on a slender petiole four or five inches in length. By reason of these long stems the leaves tremble with the slightest breeze, like the aspens. This is probably the reason why the tulip-tree is classed with the poplars; especially in the South is it called a poplar, while in the North it is sometimes called whitewood.

TULIP-TREE FLOWERS

The tulip-tree is found in no other country on the globe except in western China. In our own country it is found throughout the eastern half of the continent. West of the Mississippi River it is found only in southeastern Missouri and Arkansas.

No more satisfactory tree can be found for lawn or roadside planting. It should be transplanted while quite small, as it is easily stunted by moving after it has reached much size. This tree is perfectly hardy, but will grow much faster if planted in a rich, moist location. As it seems in danger of extermination at the hands of lumbermen, landowners should make an effort to save some of them before the last one disappears.

The lumber is easily worked, and is in demand for woodenware, cabinet-work and for the interior finishing of houses. The outside layers of wood are beautifully white, while the heart, or center, is a rich yellow.

The great tulip-shaped flowers are borne plentifully on the stout limbs, and each one opens its face straight up to the sky. The main outline of the blossom resembles its relative of the South, the magnolia. In May they are at their best, and the bees find quantities of nectar for the mere taking.

The cone-shaped seed-box contains large numbers of seeds, which ripen in October and are scattered by the winds. In protected places seedlings appear in numbers sufficient to form in time whole tulip-tree forests. M. E. S. Charles.

COMMERCIAL MANURES

There are two extremes in the attitude of our more Eastern farmers in relation to commercial fertilizers. One is in not using any or in using too small quantities, and the other is in using them extravagantly and without some knowledge of what the different compounds should be expected to perform.

The market-gardener who desires to produce extra-early crops, and must have them the first in the market, and those growing other special crops, as tobacco, and tomatoes, sugar-corn, peas, etc., for the canners, often find it profitable to use commercial manures far in excess of what is possible for the general farmer with his ordinary crops.

The agricultural writer or institute teacher who broadly proclaims a procedure that may be universally applied in any section or locality, regardless of latitude, rotation, character of soil or climate, is as much of a quack as the seller of a nostrum that is guaranteed to cure man from bald-headedness to frosted feet and all intermediate ills.

Some agricultural doctors have thus taught against commercial fertilizers, insisting that by clover-growing, cement floors in stables, perfect tillage, the dust-mulch, and so on, that maximum crops could be grown at minimum cost. Now, this is no doubt true in the abstract, all other things being equal, but the rub comes in securing the equality of other conditions. Many who have tried to follow such teaching have done so to their financial loss.

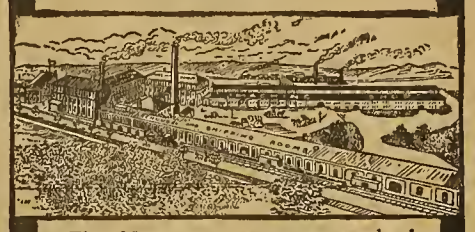
Perhaps there is no teaching more pernicious than injudicious or wrong agricultural teaching, for the shy, but otherwise teachable, farmer is apt to judge all teaching by what he has proven lacking when applied to his own needs. On the other hand, I have heard public speakers on the platform declare that a farmer was losing money by hauling animal-manure to his back fields when he could use commercial manure more economically. This sort of teaching is not indulged in now to any extent, but in the earlier days of agricultural chemicals it established strained relations between the farmer and his good friend the stable manure, and commercial manures were used wastefully as a result, and are in many places used so yet. The true idea that they are not a mainstay, but a help, a supplement, has not become universal. The farmer who neglects in any way the most careful preservation of his animal-wastes, or who applies them ignorantly to his land, who neglects cover-crops for winter and good cultivation in season, and makes up the deficiency from the purchased fertilizers, is using them wastefully, no matter how profitable he may find their use.

In the case of intensive conjunctive farming and dairying in the older Eastern sections, and where large quantities of mill-feeds are bought and all manure given the best of care, commercial fertilizers as a rule may be dispensed with; but even in these extreme cases the addition of phosphoric acid in small and frequent doses is generally found profitable.

In our more extensive general-farming methods, where the animal population averages possibly one fourth of the number of acres, for even fair results the commercial helps are deemed absolutely necessary. That their use could be materially curtailed by the growth of more leguminous crops, catch-crops and winter cover-crops, and by more thorough cultivation, I readily admit; but that we can discard them entirely without increase of animals to the acre I very gravely doubt.

W. F. McSparran.

The Sharples Tubular Separator Works.



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More and finer butter from the milk—a separator easily turned and easily cleaned—these are the secrets of the Sharples' success. Send for catalogue No. 112.

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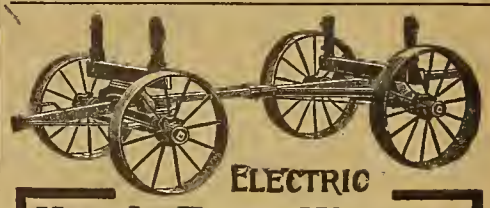

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Franco-German Oats, regular yield, 200 bu. per A. White. Limited amount for sale, prepaid, 1 bu. $1.: 5 bu. $4.: 10 bu. $7. Meatiest oat in the world. Send stamps or money order to "Whiteside Farm", Monterey, Mich.

This illustration was made from the photograph of a field of Timothy. The portion on the left was not, that on the right *was*, fertilized with

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400 pounds to the acre. Every farmer is interested in getting the heaviest possible yield of grass.

The latest edition of our Bulletin, "Food for Plants," contains an excellent article on "Grass Growing for Profit," with proof that the yield of barn-cured hay may be increased 1000 pounds per acre for each 100 pounds of Nitrate of Soda used, will be sent *free* to all interested. Send name on Post Card.

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Announcement

We have obtained the Court's decree against two additional manufacturers who have been infringing our patent. The rule of law is: "The maker, seller or user of an infringing device are all liable in damages to the owner of the patent infringed." The Janesville Machine Co. and the Keystone Farm Machine Co. are the only firms licensed to use a *flat tooth* covered by our patent, and we finally warn sellers and users of all other makes. So admirably have the 60,000 "Hallock" Weeders done the work for which they were designed, that one maker after another sought to copy it. However, by the various Courts' decisions, these makers are compelled to abandon the manufacture of a Weeder having flat teeth, and they are now experimenting with other shapes; but it is the flat tooth that made the "Hallock" Weeder famous, and in view of the manner in which our patent has been sustained, it is dangerous to use an infringing tooth. Write for descriptive circulars and prices.

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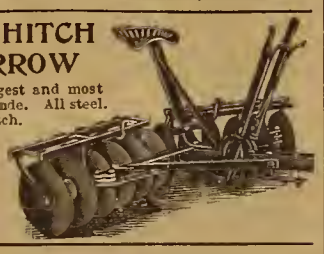

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At WHOLESALE PRICES, Delivered FREE For Houses, Barns, Roofs, all colors, and SAVE Dealers profits. In use 61 years. Officially Endorsed by the Grange. Low prices will surprise you. Write for Samples.
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Live Stock and Dairy

COW-CATCHERS

THE digestibility of food elements in a feed must determine its value in actual use. A chemist might be able to find protein in sawdust, but the cow certainly could not.

It is always a losing game for the participating animal when the nutrition from a given food only equals the potential energy necessary to get that nutrition—the animal is minus its wear and tear.

Those people who claim to be dairymen, and are depending on the negative general-purpose animal so they can have beef or butter at will, remind me of the old tavern-keeper who drew beer or ale just as the customer wished, and used but one spigot in the operation.

Men have been known to work cows as oxen, and the triple-purpose cow is as reasonable to strive for as the dual-purpose one. Beef-making is a tax on butter-making, and butter-making on beef-making, but neither is a less tax on the other than working eight hours a day with a yoke would be on either.

Advocating the double-purpose cow is not encouraging animal-development, but rather a divided heart that is working for mediocrity in so much of our farming.

The man who grows early cabbage for market doesn't sow seed at random, saying, "If it isn't early, it will be medium or late." But he sows special-purpose early cabbage. He knows he will not have as big cabbage-heads as if he sows for a later crop, but he is looking forward to the bigger price to be obtained.

Just so the strictly dairy-cow man knows his cow's carcass will not be valuable as beef in the market with the Hereford or Angus steer; but if she gives him from six thousand to ten thousand pounds of five-per-cent milk each year in addition to a calf that shall perpetuate and amplify her virtues, the value of her carcass a dozen years hence does not concern him to a very great extent.

When the owner of the general-purpose dairy that he must have established by buying, testing and rejecting desires to produce cows from his cows, does he go out and buy a general-purpose bull? No; he buys a bull of a dairy breed or of a dairy strain of a beef breed, in which latter breed it is demonstrated over and over that between beef and dairy tribes there is as distinctive a line of demarkation as that which exists between special beef and special dairy breeds.

It is not a difficult matter in any dairy section to find a hundred half-breed animals that are better dairy-cows than an equal number of the worst of the strictly dairy breeds, but such a comparison proves absolutely nothing for the one breed or against the other; and it remains a fact that the most prosperous general dairymen to-day are those who are using special-purpose animals.

There is possibly no food material offering so fertile a field for the multiplication of injurious bacteria as warm milk; it is therefore patent that in producing this incomparably valuable food the greatest care as to surrounding cleanliness should be observed and insisted upon. As purveyors to the people of the most perfect food of which we have any knowledge, it becomes the moral duty of the dairymen producing the milk, as well as of those persons who may have intermediate care of it on its way to the consumer, that it be wholesome and pure.

Warm milk is so fertile for germ-propagation because it is warm. If the temperature be reduced as soon as the milk is drawn from the udder, and kept free from dust, dirt and objectionable odors, there is no very rapid multiplication of injurious microbes. This method of treating milk is usually quite sufficient to insure its keeping qualities up to ordinary demands.

To meet extraordinary demands, the bottling of the milk immediately from the cooler, using sterilized bottles, closely sealed, and maintaining a low temperature, is effective for clean milk.

But there is so much milk that is unclean that some treatment more heroic than a simple reduction of temperature is necessary for it, and the process of pasteurization has been introduced—very largely a glossing over of uncleanliness.

The industrious and painstaking bacteriologists, working after Pasteur, have told us why milk sours, and why dirty and warm milk sours so soon; then the ingenious inventor has stepped in and given us the sterilized and the pasteurized, that we may prevail against filth.

Science and art are doing all they can to remove the natural results and effects of our sins both of omission and commission in the milk matter, but what schools or teachers are there who are crying out "Unclean! Unclean!"

If the schools and the innocent farmers' institutes but showed the same spirit of enterprise in instructing our cow-keepers in the godliness of their business that the inventors manifest in contriving to neutralize the ill results from the ungodliness, the inventors would most assuredly fail with the dairymen.

Indiscriminate buying of cows is like taking foundling children to raise—you may be fortunate enough to get a very good one, you sometimes do; you may get a very bad one, you often do.

When you raise cows you have the advantage of knowing what to expect on the ground of heredity. In the bought cow you have no such foreknowledge; she may be a very good one, but she generally isn't. W. F. McSparran.

INTELLIGENT FEEDING

Within the last ten years the reader of farm papers has seen a great deal about the "balanced ration." The experiment-station bulletin, the farm paper and the institute lecturer have worked full time urging upon the attention of farmers and stockmen the matter of balancing rations. In this way a lot of good has been done. The feeds of this country as a rule run low in muscle-forming material, and too many people failed to realize the need of adding something to the corn, the stover and the timothy hay to make growth, muscle and milk. Our usual farm feeds make fat and heat rather than blood and muscle, and attention could not be called too insistently to the necessity of providing more protein, in the form of oats, peas, clover, bran, oil-meal and other feeds that furnish the protein in which corn and timothy are lacking.

Some of our teachers, however, went too far in the matter, as is natural when urging new facts. Scientists in other countries had made experiments, and found that a certain proportion between the muscle-making material and the heat-making was right to insure the least waste by the animal. The growing animal needed a certain proportion, the old animal at rest needed another one, and so on; it appeared to be a matter of figures that could not be questioned, and the teaching was that all feeders should fall into line and provide feeding-stuffs that would have just these right amounts of the various elements, so that there would not be waste of one element by the animal while the animal could not do its best on account of lack of another element.

There is yet so much wasteful feeding and stinting of live stock by failure to provide enough protein in feeds to produce growth or milk or work that one hesitates to criticize anything that has been said about the balancing of rations; but we are learning that there may be an extreme at this end of the line as well as at the other end. The question is not what will make the maximum amount of

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Standard No. 50
Pivot Axle Cultivator

pivots above hub close to wheel and makes instant response to foot lever. No other machine with so many valuable and exclusive features. Parallel gangs, open or closed. Practical adjustment of shovels and for width of rows, its strength, light weight, suitability to any kind of crop are but suggestions. For sale by dealers. Write us for free circulars.

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Live Stock and Dairy

growth or of work or of milk, but what will make with the most net profit that which is wanted. Our scientists on the continent of Europe do not have the cheap corn and other carbonaceous foods that we produce so cheaply, and they figured on the good of the animal, which is all right; but no account of the relative cheapness of the different feeding-stuffs in this country was taken, of course, by these scientists. We are now learning that while these tables are very accurate and scientific, they may be followed by us too closely for our profit. A big factor in the feeding-problem is the amount and value of the farm feeds that one may have on hand. Very often the farmer should sell some corn, and buy middlings or some other carrier of protein; but it is found that he may oftentimes use some excess of carbonaceous feeds to secure enough protein for his animals with more profit than he can make the exchange that close adherence to the feeding-standards would require. This does not mean that it is not folly to try to grow a pig or calf on corn alone, or to try to get milk without providing protein in oats, bran or some such material; but it does mean that when a big supply of cheap farm feed is at hand, it is often most profitable not to buy enough high-priced protein feeds to make the nutritive ratio as narrow as the tables call for.

Net profit is the consideration in all feeding. In the case of young animals we can afford to make the ration as narrow as the good of the animal requires, because growth is essential, and good growth cannot be made on corn and timothy hay. Similarly, the owner of cows can afford to supply all the protein needed. Some of the most progressive dairymen roughly do that now by making half of the grain feed either bran or oats, choosing them on account of the mineral matter also contained in them; but it is equally true that grown animals may get the required amount of this muscle-making or milk-making element by eating some excess of cheaper carbonaceous foods and having a less amount of the purchased feed than exact adherence to the feeding-standards would require.

Another thing sometimes lost sight of is the palatability of the feed. A ration may be well balanced and yet not give the best results with some animal because it does not please the animal's taste as well as some other materials. Again, one animal may require a larger proportion of carbonaceous material in its feed than does another animal. The character of the ration should depend in part upon the individuality of the animal to be fed. The ration is not wholly a matter of figures. The feeder should be able to use his own judgment, only remembering that the tendency of most American feeds is to run too low in protein, and that some balancing up with protein feeds should be done.

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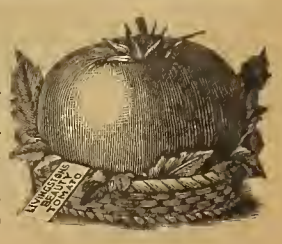

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Poultry-Raising

By P. H. JACOBS

EXPERT PICKING

Some of the expert pickers of poultry can take the feathers off the fowls so quickly as to astonish one who does not understand the operation. It is done by dipping each carcass in cold water and allowing it to drip. Finely pulverized resin is then dusted over and among the feathers, which causes the feathers to stick to the hands, even the pin-feathers coming out with but little difficulty. Use the common crude resin, about one half teaspoonful for each fowl.

CROSSING THE BREEDS

Among the mistakes made by those who keep pure-bred fowls is the crossing of the breeds. It seems to be a general desire on the part of many to cross the breeds because of the supposition that the good qualities of two breeds may be combined into one. The fact is that the qualities of both breeds are thus destroyed. Nothing is gained when the Leghorns and Brahmas are crossed, as the hardiness of the Brahma is sacrificed, as well as its size, while the prolificacy and non-sitting instinct of the Leghorn are likewise obliterated.

BROODERS AND CHICKS

The season for hatching chicks with incubators is now on, and a few hints on brooders may not be out of place. Some manufacturers of poultry appliances advertise their brooders as capable of accommodating too many chickens, and as a rule—though this is not always the case—a brooder in which it is stated one hundred chicks can be kept should not really have more than fifty at the limit. When the chickens are crowded they are liable to trample upon each other. A frequent cause of death among brooder-chickens is that the temperature in the inner compartment is kept too high. A great number of deaths is caused by this. The chickens should on no account be kept too warm, as they may become tender, and when they go out into the cold air they are liable to feel the effects of the change. The temperature of the brooder should not be more than ninety degrees for the first few days, and this should be gradually reduced to seventy-five degrees as the chicks grow. The temperatures given are not only before the chickens have been put in, but also after they have been in for some hours. When the chicks are about a fortnight old, and when the day is warm and fine, it is an excellent plan to let them go outside in the open air for a few hours. If movable brooders are used, they should be removed to fresh ground occasionally, for if the same piece of ground is used day after day, disease and death may follow. When one has very little land for the accommodation of the brooders, and it is a matter of difficulty to move them onto the fresh ground every day, new earth should be brought to the brooders. A grass sod, or some fine earth, if such can be obtained, sprinkled in the run each day, after having removed the old, will be found beneficial. Above all matters, be sure that the chicks do not become chilled, for if so they may not recover for weeks. A brooder costs but little and entails less work than caring for hens with broods. When brooders are well looked after and properly attended to the chickens thrive equally as well as when with hens. There is rather more regularity required, and the initial expense is somewhat more, but at the same time there are several distinct advantages. Brooders are ready for work at any and all times of the year, and are very convenient. Not over fifty chicks should be kept in one brooder, as they will not then be crowded, and will thrive. Feed nothing to chicks the first thirty-six, or even forty-eight, hours. That point is important. Then for four days feed pin-head oatmeal and millet-seed four times a day. After that feed bread made of one pound of bran, two pounds of corn-meal and one fourth of a pound of linseed-meal. Feed three times a day. Between meals give millet-seed, a gill to fifty chicks. Never leave any food to remain over. After the chicks are a month old feed them bread morning and night, and give potatoes, turnips, carrots, or vegetables of any kind, either cooked or raw. A raw egg mixed with corn-meal may be given three times a week, as much as they will eat up clean. Wheat or grains may be given after the chicks are well advanced. The best grain is wheat, as corn and oats are not so suitable. Buckwheat also will be found beneficial. When the chickens reach the age of two months they may be given anything that they will eat. In feeding chickens variety is one of the secrets of success. If they are given the same foods day after day they will tire of them, and will not grow or thrive so well. They must also be protected against lice. Clover-meal finds a special favor as food for chicks, and it may be used as an addition to skimmed milk. This clover-meal when scalded becomes soft, and swells, and has been found very wholesome and nutritious, as well as highly relished, by all kinds of young stock. When chicks appear stupid, especially in warm weather, and show no signs of lice, they may have the large lice on their heads, which cannot be noticed except upon close examination. If they are brooder-chicks, and one chick gets among hens, it will bring the head lice. One or two drops of melted lard on the head is the remedy. Very few persons who examine for lice look for the large kinds on the heads, and conclude that there are no lice, although the vermin are at work. The much-advertised lice-killers are the best remedies.

RUNS OF LEGHORNS AND MINORCAS—MARYLAND AGRICULTURAL COLLEGE

INQUIRIES ANSWERED

Cholera.—Mrs. L. P., Porter, Mich., states that "her flocks have had cholera. Her remedy is wintergreen in the drinking-water." One difficulty is that many persons diagnose a disease as cholera when it does not exist. Cholera is a disease that "kills or cures" in twenty-four hours.

Hens Laying Every Other Day.—Mrs. N. C., San Bernardino, Cal., wishes to know the cause of "hens laying every other day. She feeds liberally, and they lay large eggs." It is possible that not all of them do so. It is not unusual for hens to lay every other day, much depending upon circumstances.

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The No. 8
"Planet Jr."
Horse Hoe and Cultivator

is without doubt the best, best known and most largely used one horse cultivator in the world. There is not a civilized country on the globe in which it is not known and used. This could not be so if it did not possess true merit and worth. It has a large number of attachments which make it readily adaptable to all uses and nearly all crops. Note the two levers. The one standing upright is for regulating the width. It changes the width of the tool for wide or narrow rows. The other lever operates the wheel and depth regulator simultaneously to a nicety. It is made of the very best material throughout and with reasonable care will last indefinitely. It is a great favorite with potato growers, truck farmers and general farmers. It is but one of our fifty seeding and cultivating implements, including plain and combined Seed Sowers, Wheel Hoes, Hand Cultivators, Walking Cultivators and One and Two-horse Riding cultivators, Special Sugar Beet Tools, etc. Our new 1903 catalogue is fine. It contains over 100 illustrations with full descriptions and prices. It costs you nothing and will make you money. Write for it at once.

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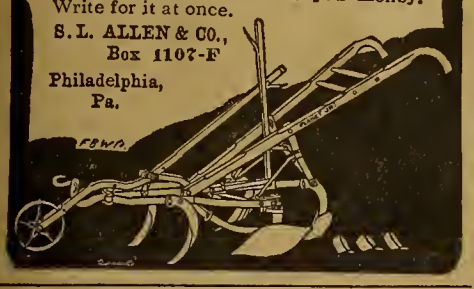

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for 1903 is free to all interested in gardening who mention this paper. If you want an up-to-date garden you ought to have it, the best seed catalogue I have ever published. The first edition costs over $37,000. Address simply

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The best book on strawberry growing ever written. It tells how to grow the biggest crops of big berries ever produced. The book is a treatise on **Plant Physiology,** and explains how to make plants bear **Big Berries and Lots of Them.** The only thoroughbred, scientifically grown **Strawberry Plants** to be had for spring planting. One of them is worth a dozen common scrub plants. They grow **BIG RED BERRIES.** The book is sent free to all readers of the FARM AND FIRESIDE. Send your address to
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Largest growers of Seed Potatoes in America. The "Rural New Yorker" gives Salzer's Early Wisconsin a yield of 742 bu. per a. Prices dirt cheap. Mammoth seed book and sample of Teosinte, Speltz, Macaroni Wheat, 68 bu. per a., Giant Clover, etc., upon receipt of 10c postage.
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BARNES New Improved All Brass Perfection Spraying Pump
Simplest and most substantial Pump in the world. Made with seamless brass tubing without threads on either end. Easily taken apart to clean. Does the work required quickly and effectively—a pump that is cheaper in the "long run." Users of Spraying Pumps would have none other after trying Barnes Perfection Pump. Send for free circular of receipts and other valuable information. Send $2.50 for samples and agency. We manufacture Iron Pumps of every kind for farm use. We also make a brass-bucket Spraying Pump with malleable-iron foot-rest. Address THE BARNES MFG. CO., Mansfield, Ohio.

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STARK TREES best by Test—78 YEARS. We WANT MORE SALESMEN PAY CASH Weekly
Stark Nursery, Louisiana, Mo.; Dansville, N. Y.

The Grange

By MRS. MARY E. LEE

THE WORK OF THE GRANGE

THE grange, in order to retain its prestige with the people and the devotion of its members, must keep abreast of the rapid changes and business methods incident in the development of nations—transportation facilities, combinations, inventions and legislation.

It is apparent to every thoughtful person that knowledge and brain-force are the dominant factors in successful agriculture. It is not only necessary to know all about soils and soil and climatic conditions, as well as methods of culture, understanding stock-breeding, feeding and marketing, but it is necessary to have a general knowledge of commerce, and understand the effect on agriculture of legislation in this and other countries with which we are in competition, the effect of state and national revenue laws and commercial and reciprocity treaties.

At meetings of subordinate, Pomona, State and National granges, and at public field-meetings held under their auspices, all these important matters should be, and are, carefully considered.

The grange as now conducted may be regarded as a school to educate its members in all that pertains to the science of agriculture, to life's duties in home and home-making, socially, fraternally, and as citizens of local, state and national government.

The problems presented to the members of the grange, therefore, interest and affect all the people of the country. We regard the grange and the agricultural press as important factors to aid in this work. It is the purpose of the grange to encourage coöperation with the press, close reading and thinking on the part of the membership on all matters pertaining to agriculture and its relation to the laws of this and other countries, and to other industrial interests.

The farmers, as well as the entire people, are interested in the matter of production of the varied products of the farm at the least expense of labor, capital and fertility of soil. Every farmer is interested in the sale of the products of the farm to the best advantage. To accomplish this successfully requires broad commercial information, and requires the use of much capital to provide storage for the varied products until needed for consumptive demand. To know how to best prepare the various products, to best meet the wants of customers, when and where to sell, requires broad reading, accurate knowledge, and demands much study on the part of farmers.

The grange as an organization is on record as opposed to combination or trust methods to arbitrarily fix prices of farm or any other products, and is equally opposed to excessive charges of transportation, storage, insurance and commissions on farm or other products in transit between producer and consumer. The grange believes all unnecessary charges should be eliminated, and the saving thereby effected divided between producer and consumer, thus benefiting both these deserving classes.

To bring producer and consumer close together is therefore one of the strong features of the order. The implements needed by the farmer should be placed in his hands at as little expense as possible from the time they leave the factory. It is manifestly the interest of both the manufacturer and farmer that the intermediate expense be as small as possible. It is equally true that the product of the farm should be placed in the hands of the consumer at as small an expense as possible from the time it leaves the farm until needed by the consumer.

The purpose and work of the grange when broadly considered means to furnish a better product at less cost to producers and consumers, better farms and farm homes, a happier and more prosperous and independent citizenship, and is therefore in harmony with the best interest of manufacturers, labor, and conducive to the best business and commercial interests of our country.

Fraternally,
AARON JONES,
Master National Grange.

COÖPERATIVE WORK

A reader in Nebraska writes: "Our farmers want to coöperate in selling wheat, cattle and other farm products, and in buying their necessities. We are favorably impressed with the grange. Will you please give us the details of its coöperative features?"

We have answered the letter by mail, in order that an organization might be effected at once. The question is similar to others, and we answer it for the benefit of others.

Each state has a trade agent, who secures wholesale prices from manufacturers, importers, dealers, commission-men, etc. They also make arrangements with reliable commission-houses to which the grange can ship its produce. These agents issue a trade circular, which is sent to every subordinate grange, giving the names of the firms contracted with and the goods they handle. They also exchange prices and lists each month, thus keeping one another posted on trade matters. The trade agent, usually a member of the state executive committee, is ready to aid granges with any information he may have in regard to markets. This enables the members to combine their shipments or orders, as the case may be, and secure advantageous terms. So far it has proven the safest and most feasible of any of the plans of coöperation in buying and selling. The fa· that each year trade through grange-arrangements increases, and that business men are ready to make us good terms, indicate that it meets the indorsement of some of our best farmers. Moreover, we know of many granges organized for the sole purpose of securing advantageous trade-arrangements and safe, reliable and economical fire insurance. Fire insurance in Grange Mutual Insurance Company in Ohio costs about one third of that in old-line companies. What is true in Ohio is true also of nearly every grange state.

THE OBSERVATORY

The man who gets the most out of the grange is he who puts in the most.

All the beneficent legislation possible to attain will not help the man who will not attempt to help himself.

Organization, education and coöperation are the watchwords of the grange. Through these agencies and these alone will the highest success come.

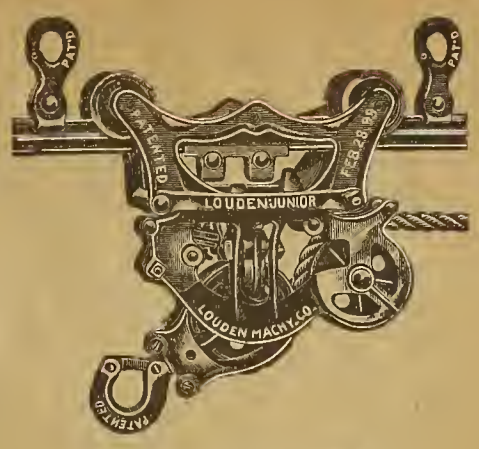
One cannot pick up an agricultural paper but he reads news of farmers combining to sell the chief products of the farm. That's right. Meet coöperative effort with coöperation.

Thousands of farmers, realizing the necessity of organization, are seeking the best order. Be sure the society you support has something to join besides promises. Promises are good, but they pay no bills, secure no laws.

National Master Jones has ruled that the secretary's minutes shall be read twice—at the closing of the session, for correction and adoption, and at the opening of the subsequent session, for the information of those present.

Manufacturers of farm machinery have formed a trust and given their agents orders not to sell a machine under the price set by the combine. An agent forfeits his position as salesman for any of the firms combined by making a cut rate of any sort with any machine. Farmers, how will you meet this proposition? With organization? It is the only way.

There is much more in good farming than the raising of good crops. Good farming means the maintenance of fertility, the profitable marketing of products, the economical buying of all material, the art of making a dollar cover one hundred cents' worth of ground. No farmer who buys in small lots, individually, is doing justice to himself, family or farm. Try combining a few orders through grange-trade arrangements, and see what economy there is in it.



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OFFER No. 2—Sample Stock Food Free
Send us ten names of the best farmers and stock-raisers in your vicinity, and we will mail you a sample package of American Stock Food free of charge.

Designate if you want Offer No. 1 or No. 2, or both. Address Dept. A.

American Stock Food with Picture of Uncle Sam the Greatest Stock Food on the Market To-day.
THE AMERICAN STOCK FOOD CO.
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tens of thousands of them, for 40 years have annually relied upon
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Experience has taught that they ARE THE BEST. Sold under three warrants that our seed will do their part in the making of the crop. Catalogue free.
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R. H. SHUMWAY, Rockford, Illinois.

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$6.95 AT WE CLOTHE A MAN COMPLETE from head to foot with a stylish, perfect fitting sack suit, made of rich fast color dark blue ALL WOOL SERGE CHEVIOT, a pair of stylish dress shoes, latest London toe, a pair of fancy merino hose, a fashionable Derby or Fedora hat, a fine fancy percale shirt with two collars and detachable cuffs, a beautiful silk handkerchief, a rich silk four-in-hand, teck or bow necktie and a pair of fine silk overshot suspenders. SEND $1.00 DEPOSIT and give height, weight, chest, waist and crotch measure for suit, state size of shoes, hose, hat and shirt, style of hat and tie, and we will send the complete outfit exactly as described, C. O. D., by express, subject to examination, balance, $5.95, and express charges to be paid express agent if everything fits perfect, and is entirely satisfactory, otherwise we will instantly refund your $1.00. Order the outfit today, or write for FREE CLOTH SAMPLES of men's and boys' ready-made and made-to-order clothing and mackintoshes at prices ranging for Men's All Wool Suits at $4.35 up, Trousers $1.25 up, Boys' Long Pants Suits $3.50 up, Child's Two-Piece Suits $1.50 up, and Mackintoshes $1.50 up. Write for samples. JOHN M. SMYTH CO., 150-177 W. Madison St., Chicago.

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Wagon World Awheel.
Half a million of these steel wheels have been sent out on our own wagons and to fit other wagons. It is the wheel that determines the life of any wagon, and this is the longest lived wheel made. Do you want a low down Handy Wagon to use about the place? We will fit out your old wagon with Electric Wheels of any size and any shape tire, straight or staggered spokes. No cracked hubs, no loose spokes, no rotten felloes, no resetting. Write for the big new catalogue. It is free.
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CASH FOR YOUR farm, home, business, or other property (no matter where located or how large or small) may be obtained through me. Send description, state price, and get full particulars free. Est'd 1896. Highest references. Offices in 14 cities, from Boston to San Francisco.
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ROOFING "Old Style Iron" SEND FOR CATALOGUE
Sykes Metal Lath & Roofing Co., CHICAGO, ILLS. NILES, OHIO

Around the Fireside

THE HOME-MAKER

Oh for a home on a windy height,
Close by the sounding sea!
A castle, rising clear and white,
Above a spreading lea!
Where the far sea-view, from the rough rock walls,
The sweep of the low, wide land,
Will give to the soul in the stately halls
An uplift pure and grand.

Oh for a home in a humble town,
A garden of bloom and green,
With little of wealth and less renown—
As the twilight hour serene!
Where the voices of friends are mingled oft—
In song, in sorrow, in mirth,
And a sweet content pervades it, soft
As the summer-time to earth.

Oh for a home by the shadowy wood,
Away from the million schemes!
A home where the whispering leaves are good
To the man who works and dreams!
Who digs in the soil for his daily bread,
Strong and patient and free;
Who dreams, while a wild bird overhead
Sings of eternity.

But whether on sea-girt, windy height,
Or hard by the forest wild,
Or round the cottage candle-light
In converse glad and mild—
Oh for a home in the heart of love!
The sea and the wood may fade;
Ever the good God reigns above—
And the soul? It is undismayed!
—Charles W. Stevenson, in The House Beautiful.

ANCIENT GOLD-MINES IN AFRICA

RHODESIA, or British Zambesia, ranks among the chief gold-bearing countries of the world. The ancients mined and carried away enormous quantities of the precious metal, but under the scientific mining-systems of the present day their operations will be greatly surpassed. In the recently published work on the "Ancient Ruins of Rhodesia," the authors, Messrs. Hall and Neal, endeavor to discover who the ancients were, and whither the gold went.

Perhaps Rhodesia was the ancient land of Ophir, the land of the mysterious "King Solomon's mines," but the theory is strongly combated by some investigators. The ancient gold-workings are the basis of modern workings. For every ten square miles of Rhodesia there was one ancient mine; that is, there are seventy-five thousand old holes, which means that a stupendous wealth was dug out of the earth before the days of Cecil Rhodes. Much of this wealth must have gone to the north and east; it was probably wrought into the crown of the Queen of Sheba and filled the coffers of Solomon.

The ancient smelting-furnaces are still easy to recognize. They are sunk into the floor. The furnace blowpipes are made of the finest granite-powder cement, and the nozzles of the blowpipes are covered with splashes of gold. The linings of the holes are covered with specks of gold. When the first lining became worn by the heat, a fresh lining of cement of an excellent quality, which has outlasted time, was smeared around on top of the old lining. One can take an old lining, split off the layers with a knife, and find gold splashes in abundance.

Apparently the ancients wasted gold lavishly. Gold has been found in large quantities in the form of pellets as large as buckshot in the vicinity of the furnaces, and also thrown away on the debris-heaps outside of the old buildings.

The tools of the ancient workers which have so far been discovered include a small soapstone hammer and burnishing-stones of water-worn rock, to which gold still adheres. There are evidences that the ancients carried on an extensive industry in the manufacture of gold ornaments and utensils. Thirty-five thousand dollars' worth of gold ornaments have been taken in the last five years from the ruins of Matabeleland alone.—The Youth's Companion.

PARLOR MAGIC

THE UBIQUITOUS THIMBLE

This is one of the prettiest sleight-of-hand tricks in existence, and requires very little practice. For the purpose of the trick in its entirety the performer must be provided with two thimbles exactly alike; but very many surprising passes can be made with one thimble only. The idea of the trick proper is to cause the thimble placed on the forefinger of the right hand to disappear and be found on the corresponding finger of the left hand without the hands approaching each other. It is usual, however, in the first place, to execute a number of passes with one thimble only, as by this means the audience will be the less likely to suspect the introduction of the second one. The main thing necessary is to acquire the knack of holding a thimble in the fleshy portion of the hand at the root of the thumb, in which position it can be placed or removed at pleasure by simply bending the forefinger; see Figs.

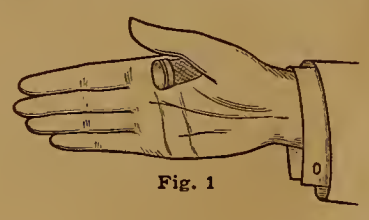
Fig. 1

1 and 2. This sleight must be executed with equal facility with both hands.

When about to present the trick, the performer comes forward with a thimble on the forefinger of the right hand, the second one being in the left-hand trousers-pocket. He now appears to place the thimble in the left hand, but really when the right hand is in motion toward the left it is palmed as described. The left hand is then brought down with some force on the head, and the thimble produced from the mouth on the forefinger of the right hand. This can be done with

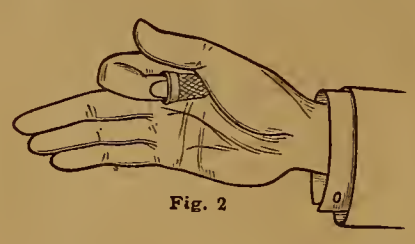
Fig. 2

perfect ease, as so long as the hand is kept in motion during the recovery of the thimble there is no fear of the movement being detected.

The thimble is then apparently placed in the mouth, but really being palmed as before, and afterward produced from the bottom of the vest. While doing this, the performer stands with the left hand in the trousers-pocket and palms the second thimble. Both hands are now held palms away from the spectators and kept in continual motion. Under cover of this, the right-hand thimble is palmed, and that in the left hand produced, when it will appear to the spectators to have been passed from one hand to the other.—Ellis Stanyon, in Youth.

A LITTLE JUDAS BIRD

The white-beaked honey-guide lives in Africa. He is not at all stylish in appearance; he wears a gray-brown coat, with short wings that look very much like sleeves, edged with white; there is a black band around his throat, and he sports a yellowish-white vest. I am sure you will not wonder at anything I shall tell you of him when you hear that he belongs to the vicious, ne'er-do-well cuckoo family.

This treacherous little soul has a passion for honey; but he cannot help himself to the golden sweet, because the bees drive him away from their home, so he hunts up some one who will do the work and pay him for his telling with the food he loves so well.

Whenever he discovers a nest, off he flies until he discovers a native; keeping close beside the man, he twitters and clatters at a great rate until he attracts his attention. Then he flutters away a short distance, stopping at intervals to see if he is followed. On, on he leads, indulging in many a queer antic when he finds that he has gained his end.

When he reaches the nest, hovering over the spot, he points with his bill to the place which contains the treasure. When satisfied that his human accomplice understands, he takes refuge on a branch near by, sitting with the utmost patience until the bees are stupefied, as he knows full well that he will come in for his share of the feast, for the natives never fail to pay the rascal in honey as a reward for his villainy. If the honey-guide has been fortunate enough to discover more than one nest, he will promptly lead to the others.

I do not know how it is that the bees are so wise, but they seem to realize the character of this Judas, and when they see him poised over their nests they work themselves into a perfect fury. Their tiny weapons will not pierce the bird's thick feather coat, so they rush at his eyes in a mass, dealing swift, sharp blows with their small daggers.

Sometimes the honey-guide is fortunate enough to escape punishment for his ill deeds, but often he is taken by surprise, and falls to the ground to die, without even a taste of the sweets, to procure which he became a traitor.—Lizzie De Armond, in Sunday-School Visitor.

NEW STARS

It is suggested by Louis Rabourdin, a French writer, that in each of the new stars that blaze forth in the heavens from time to time we see the destruction of a celestial body by a volcanic cataclysm. At any rate, he says if part of the earth's crust underlying the ocean should give way our earth would doubtless present in succession, to a distant observer, the same series of appearances that we witness in the case of "novae," or "new stars." First there would be an outburst of blazing hydrogen from the sea-water, decomposed by the earth's internal heat, then fusion of the whole crust, reducing the globe again to a molten state, and then the gradual extinction of its light, owing to cooling. As cooling would first take place locally, we should have a variable star, the darkened portions being periodically brought into view by the rotation of the globe.—Success.

THE LENGTH OF LIFE IS INCREASING

The average length of human life is constantly and steadily increasing, having, according to Dr. George M. Kober, professor of hygiene in Georgetown University, D. C., doubled within the past three centuries. In the sixteenth century it was between eighteen and twenty years, while to-day it is forty. The principal agencies in this prolongation of life, Doctor Kober believes, are more attention to the air we breathe and more care as to the water we drink. This opinion is sustained by the statistics of large cities, which show that, owing to improved sanitation, the introduction of sewers and of public-water supplies, their rates of mortality within the past forty years have been reduced to about one half. Do you want to prolong your life and increase your powers? Then breathe deeply, and drink plenty of pure water between, not at, meals; not iced water or boiled water, but distilled water.—Success.

FOOD FOR NERVOUS INDIVIDUALS

As a rule, salt meat is not adapted to the requirements of nervous people, as nutritious juices go into the brine to a great extent. Fish of all kinds is good for them. Raw eggs, contrary to the common opinion, are not as digestible as those that have been well cooked. Good bread, sweet butter and lean meat are the best food for the nerves. People troubled with insomnia and nervous starting from sleep and sensations of falling can often be cured by limiting themselves to a diet of milk alone for a time. An adult should take a pint at a meal, and take four meals a day. People with weakened nerves require frequently a larger quantity of water than those whose nerves and brains are strong. It aids the digestion of these by making it soluble, and seems to have a direct tonic effect.—Science News.

Sunday Reading

OVER THE HILLS

Over the hills and far away
A little boy steals from his morning play,
And under the blossoming apple-tree
He lies and he dreams of the things to be—
Of battles fought and of victories won,
Of wrongs o'erthrown and of great deeds done;
Of the valor that he shall prove some day,
Over the hills and far away—
Over the hills and far away!

Over the hills and far away,
It's oh for the toil the livelong day!
But it mattered not to the soul aflame
With a love for riches and power and fame!
On, O man! while the sun is high—
On to the certain joys that lie
Yonder where blazeth the noon of day;
Over the hills and far away—
Over the hills and far away!

Over the hills and far away
An old man lingers at close of day;
Now that his journey is almost done,
His battles fought and his victories won—
The old-time honesty and truth,
The trustfulness and the friends of youth,
Home and mother—where are they?
Over the hills and far away—
Over the years and far away!
—Eugene Field.

THE WISDOM OF SOLOMON

MRS. WALLACE looked up from the work over which her needle was rapidly flying, and for one astonished moment let her hands fall in her lap, while her indignant eyes flashed at her cousin.

"Jennie Carter, you must think I am an idiot! You are always triumphing over me with your Bible quotations, but I'm not such a goose as to accept that for inspiration; it doesn't even sound like Scripture."

Jennie laughed in her quiet fashion, and reached for the Bible from the table near her.

"It is Scripture, nevertheless, and I call it excellent philosophy, if it did come from Solomon."

"Oh, Solomon! Well, one never quite knows whether he is talking from the standpoint of the preacher or the man who sets himself to know madness and folly."

"Listen," said Jennie; "you shall have the exact words: 'Also take no heed unto all the words that are spoken, lest thou hear thy servant curse thee; for oftentimes also thine own heart knoweth that thou thyself have likewise cursed others.'"

"Let me see it. Well, it certainly is there, but I never would have believed it."

"And don't you see," said Jennie, "that having counseled us sometimes to shut our eyes and ears to unpleasant things as the most comfortable way of getting along, the wise man enforces his argument by appealing to our own consciousness of its justice. How many things have you said and thought in your heart which would condemn you if they were proclaimed?"

"But think of shiftless, slatternly Norah telling Bridget that I was crosser than forty bears, and an angel from heaven couldn't suit me."

"She was only expressing her opinion of you to a friend, just as you are telling me your opinion of her."

"She is shiftless and slatternly—"

"And you are an admirable housekeeper, but a little inclined—"

Jennie paused, and Mrs. Wallace laughed, but colored uncomfortably as she said, frankly, "Yes, I know I'm not amiable; I feel strongly, and so I speak strongly. Words often seem to be entirely inadequate to express my feelings."

"But suppose you did not express them."

"Not when I see Norah stirring her omelet with a new silver spoon, using a china cup in which to measure butter, and a tea-towel for a holder? Just wait till you are mistress of a house, my lady."

"Do you remember Aunt Kate's way, and how many years she managed that crochety Mary? Her girls used to say she had eyes in the back of her head, but this was the way she used them: She would find occasion to do something about the stove, and say, 'Bring me a holder, Mary; I won't spoil your nice towels;' or, 'That was a lovely omelet you made this morning, Mary; but don't you think it tasted of silver?' And when Mary fairly started out for one of her hurricane days, Aunt Kate just kept out of the way, and pretended not to notice that anything was wrong."

"That may do with servants, perhaps, if one has the grace; but when it comes to children you must notice their faults."

"Not always. It seems to me if I were pretty sure my children meant to do right, I should not be too careful to inquire whether they succeeded in every instance. I declare to you, Melly, I have seen children in beautiful Christian homes whom I pitied as sincerely as I do the heathen on our streets, and who seem to me to have no better chance of growing up with any adequate conception of right and wrong."

Mrs. Wallace murmured something about old maids' children, but her cousin went on:

"They lived in perpetual terror of transgressing some law, or calling down in some way a rebuke; they seemed to be always dodging a reproving glance or a word of criticism, just as others dodge an expected blow. It seems to me inevitable that they must either grow up utterly callous to reproof and disapproval, or become habitually deceitful and hypocritical."

Mrs. Wallace, whose eyes were always alert, started up, exclaiming sharply, "Now, there goes Arthur straight across the lawn, and I charged him to keep off the wet grass."

"Wait a minute, Melly," begged her cousin; "don't you hear the band? The little fellow thinks of nothing but the music; he is not disobeying, only forgetting. Suppose you don't see him this time."

Mrs. Wallace frowned a little, but sat down, and in a few moments her little boy came in with glowing cheeks and sparkling eyes, wild with delight at the music and the gay uniforms. It would have been a hard heart that could have resisted his enthusiasm, and Mrs. Wallace only said, with a smile, "You're mama's own boy for music, but don't forget about the grass; it is very wet after the rain."

"Oh, mama," said Arthur, looking regretfully at his feet, "I didn't think about the grass, I was in such a hurry. I'm so sorry."

"Never mind now," said his mother; "mama knows you meant to remember, and she'll excuse you."

"Nice mama," said Arthur, patting her cheek as he ran away.

"Jennie," said Mrs. Wallace, after a moment of silence, "Solomon was right. Do you know what I was going to do? I was going to call Arthur straight back, and make him sit in his chair half an hour for disobeying me. We should both have been angry, and ten to one I should have had one of my regular battles with him. I declare," she exclaimed, biting her lips, "there he goes on the grass again."

But the little fellow only took one impulsive step toward his playmate, who was calling him, and then turned quickly and went by the long circuit of the walk.

"There," said Jennie; "I call that obedience."

"I am going straight down to praise Norah for the way she has polished the brass, and if I find her raking out cinders with the carving-fork I'll hold my peace until some other time. Haven't I just snipped off a whalebone with my embroidery-scissors to save myself going up-stairs for a penknife?"

Mrs. Wallace went to the kitchen humming the march the band had played, and her cousin laid away the Bible, saying, with an amused laugh, "Wise King Solomon!"—Manford's Magazine.

Still fight resolutely on, knowing that in this spiritual combat none is overcome but him who ceases to struggle and to trust in God.—Lorenzo Scupoli.

A LETTER TO READERS

NEW YORK CITY, NOV. 9th, 1902.

A little over a year ago I was taken with severe pains in my kidneys and bladder. They continued to give me trouble for over two months, and I suffered untold misery. I became weak, emaciated and very much run down. I had great difficulty in retaining my urine, and was obliged to pass water very often night and day. After I had used a sample bottle of Swamp-Root, which you so kindly sent me on my request, I experienced great relief. I immediately bought of my druggist, Wm. J. Burns, 9th Avenue, a large bottle, and continued taking it regularly. I am pleased to say that it cured me entirely. I can now stand on my feet all day without having any bad symptoms whatever. I was in the Hospital in February last, before I used Swamp-Root, and the doctors examined my kidneys and said there was no trouble there, but after hearing so much about your Swamp-Root, and what it had done for other women, I concluded to try it, with the result that to-day I am a well woman. You are at liberty to use this testimonial letter if you wish.

Very gratefully yours,

Mrs. E. Austin.

359 West 19th St. New York City.

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"King of the Corn Field."

A machine distinguished for perfection and variety of duty. Plants Corn, Peas, Beans, Beets, Buckwheat, etc. Corn and Beans or Corn and Pumpkins at the same time. Plants either in drills or in hills 4½, 9, 12, 18, 24, 36 or 72 inches apart. Distributes uniformly all commercial fertilizers, wet, dry, lumpy, etc. 25 to 700 lbs. per acre. Improved row marker. Strong and durable, easily handled, fully guaranteed. Agents wanted. Catalogue free.

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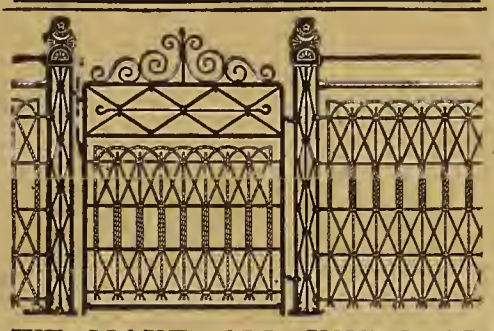

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Write for our FREE CATALOG.
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KILLS ALL WEEDS

NOTE THE "A" SHAPE.

This admits of widest adjustment— 7 1-2 feet wide for field work and can be narrowed down to 30 in. for work between rows. Front wheel makes it run easy and steady. Furnished either with round teeth or with flat to suit the different soils, as we are licensed by the Hallock Weeder Company to use their famous flat tooth. We mail Weeder Booklet Free. We also make a full line of Corn Planters, Cultivators, Harrows, Rollers, etc. Ask for Catalogue C.

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WE'LL PAY THE FREIGHT and send 4 Buggy Wheels, Steel Tire on, . $7.25 With Rubber Tires, $15.00. I mfg. wheels ¾ to 4 in. tread. Top Buggies, $28.75; Harness, $3.60. Write for catalogue. Learn how to buy vehicles and parts direct. Wagon Umbrella FREE. W. F. BOOB, Cincinnati, O.

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The Dealer Is Against Us because we sell you wire fence direct from the factory at manufacturer's prices.

The dealer does not give you a better fence than we do, but he charges you more for it. You can buy the

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direct from us just as cheap as the dealer can. No loose ends to unravel, ruining fence. All closely interwoven. Cross wires can't slip. No small wires used. We do not impair the quality to make our fence cheap. In fact, we depend upon the quality to hold our trade. Write a postal for circulars and prices. Have fence ready when you need it.

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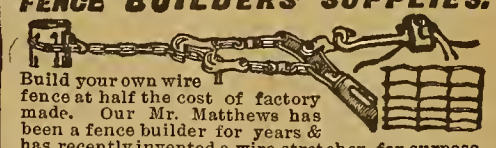

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25 designs, all steel. Handsome, durable.—Cheaper than a wood fence. Special inducements to church and cemeteries. Catalogue free.
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Best in the world for Fence and Telephone Post Holes, Wells, etc. Used by U. S. Govt. Highest award World's Fair.

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16 to 35 Cents Per Rod.

Heaviest, strongest, most durable fence made. All wires extra large. We sell to Farmers at Wholesale Prices. Coiled Spring, Barb and Soft Galvanized Wire. WRITE FOR CATALOGUE
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50000 FARMERS

Now use Duplex Machines, making Fence Horse-high, Bull-strong, Pig and Chicken-tight at ACTUAL COST OF WIRE and save profit fence manufacturers extort. Why don't you? Machine on Trial. Catalog free
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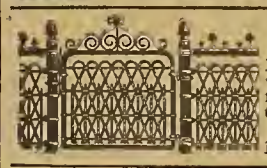

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Not of short wires to disengage and injure stock with loose ends. Horizontal and truss wires all continuous, very strong at top and bottom. Meshes of main and truss wires always remain in place and bind the whole into a compact bar against all stock. In various heights, 18, 24, etc., up to 54 inches. A fence that is beautiful, strong and permanent. Provides for expansion and contraction in heat and cold. Never sags while posts stand up. Write for catalog.
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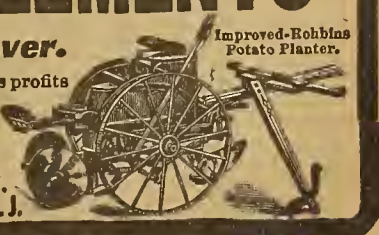

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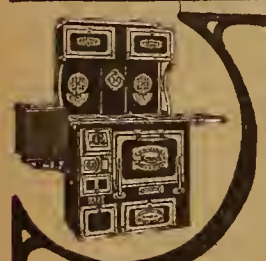

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Where we have no dealer sold Direct at Wholesale Price. Malleable Iron will not crack, warp or break. Polished steel body requires no paint or enamel. Malleable frames make joints as tight as steam-boiler. Any equipment desired.

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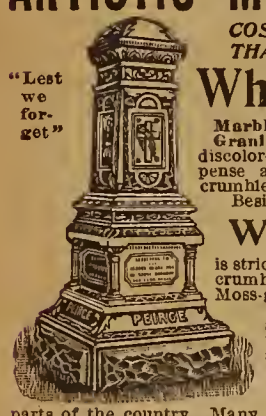

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COST NO MORE THAN PLAIN ONES IN
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Marble is entirely out of date. Granite soon gets moss-grown, discolored, requires constant expense and care, and eventually crumbles back to Mother Earth. Besides it is very expensive.

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is strictly everlasting. It cannot crumble with the action of frost. Moss-growth is an impossibility. It is more artistic than any stone. Then why not investigate it? It has been adopted for more than a hundred public monuments and by thousands of delighted customers in all parts of the country. Many granite-dealers have used White Bronze in preference to granite for their own burial plots. We have designs from $4.00 to $4,000.00. Write at once for free designs and information. It puts you under no obligations. We deal direct and deliver everywhere.
☞Special inducements for winter orders. AGENTS WANTED.

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BIG WAGES TO MEN and WOMEN

Mr. Tassell made $1,500 the first five months. Mr. Wise, of S.D., $12. 1st day. Mr. Clay, of Vt., $9 first day. Mr. Doerge, of Me., $10 one afternoon. Mr. Elliott, of Pa., $17 first two days. Mrs. Howard, of Ia., $59.50 in one week. Hundreds of others making big money selling and appointing agents for Quaker Vapor Bath Cabinets. Prices reduced. Let us start you. We furnish everything. Anyone willing to work can make $20 to $40 a week easy. Greatest money-maker known. Just what everybody needs. Wonderful Seller. We're old firm. Capital $100,000.00. Write for New Plan, Terms, Etc., FREE. Address, WORLD M'F'G CO., 5 World Bldg., Cincinnati, O.

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If you have a team and can give bond we'll give you credit and start you in a business of your own, selling our standard household remedies. No experience required. Oldest, largest and best company of the kind in the world. Write to-day for exclusive territory. 325 canvassers now at work—all satisfied. *Established 1868. Capital Stock, $500,000.*
THE J. R. WATKINS COMPANY,
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SPECTACLES at wholesale. Send for catalog. Agents wanted. Coulter Optical Co., Chicago, Ill.

If afflicted with weak eyes use Thompson's Eye Water

The Housewife

OUR CHILDREN AS INDIVIDUALS

Our children not only have a right to be well born, but also to be carefully reared. And just as true is it that no parent trains her children aright who treats them all exactly alike as it is that no teacher ought to mold all her pupils in the same mold.

Parents must study the individual characteristics of their children. Some children are naturally forward, and must be held back, while in that very same family there may be those who are shrinking and timid, and must be spurred on. One boy may be of a quick, violent temper, full of impulses good and bad; his brother may be of a slower nature, have no fits of temper, yet be of a morose temperament. These boys must be given entirely different methods of discipline.

One tiny daughter is timid and nervous; her older sister appears not to possess a nerve. It requires the wisdom of a serpent and the harmlessness of a dove to know how to deal rightly with these opposite natures.

The Spanish fleet which was destroyed at Santiago was destroyed because the gunners failed to take definite aim; they fired "at all outdoors." They aimed at nothing, and hit it. Much of the present training of children is about as indefinite, and accomplishes the same result—nothing.

We must do as Froebel says, "live with our children," and be their loving, individual guide.

One thing we learned while "across the Range," in regard to the breaking of the bronchos, was that the trainer was very particular that the colts were handled very gently and spoken to kindly. I thought parents might learn a lesson from this.

Study each child, and then remove the causes of his "naughtiness" so far as in you lies. This is a far better method than allowing him to transgress, then punishing him for it.

If we continually oppose our children, they will become discouraged and think that mama has ceased to love them. If we must oppose, let us do it in such a manner that they will have no doubt of mama's love.

Do you know that a child's character is being formed while he is sleeping? That eminent scientist, Prof. Elmer Gates, says that all night long the blood builds up most rapidly those portions of the brain which were most active just before sleep began. He asserts that if the last sensations are of anger, fear or hatred, then the blood builds into the cells of the brain an unhappy temper and a shadowed life; but if the impressions just before going to sleep be of love, joy and peace, then the result will be a sunny disposition and cheerful temperament. This is surely something to think of, isn't it, mother?

ELLA BARTLETT SIMMONS.

CAN SHE COOK?

"Can you cook?" was the question put to me by a man who happened in the office one day.

"I most assuredly can. I can cook a good plain meal, but no fancy ones. The man I marry won't starve, that is certain," was the reply I gave him.

"Well, it seems funny that you should know how when you have been in an office for so many years," he said.

"Yes, but I learned in my mother's kitchen while I was going to school; in fact, all her children, even my brother, are good cooks. My mother knew nothing at all about cooking when she was married, and when she had three children to rear she said they should know at least how to put a good, wholesome meal on the table before they were married, and I thank her every day for the lessons thus taught me."

It is strange that so many girls get married who have only a superficial knowledge of cooking. They firmly believe they can learn it all after they go to housekeeping, but woe be unto the man who has to eat some of the indigestibles. Of course, some women are born cooks and could cook pretty good at first trial; but there are some who do not know the first principle of cooking, and it is to their advantage to learn how.

The drudge of housekeeping, as some put it, can be greatly overcome by being thoroughly acquainted with your subject. You have to learn to keep house, just the same as you learn book-keeping or stenography or anything else in this life. If you do things systematically it makes the work much easier, the same as in an office or the working of a big machine. You cannot expect to throw the different parts of a machine together helter-skelter and then have it work satisfactorily any more than you can try to do forty things at once in your housekeeping and expect the work to go along smoothly. There are exceptions to every rule, and sometimes things do not run right, but a little patience is needed, that is all. A few moments spent every day in a girl's own home, with her mother to instruct her, soon shows results. When she has her own home, everything will go along much easier for the experience she had at home than if she started out by herself.

If your daughter will not learn because she does not want to or because you wish her to, pay her for what she does. This will also teach her the value of a dollar. A friend of mine said, "My sister thinks I am stingy, but it is not true; it is only that I had to learn the value of a dollar. When I really can spend it without thinking how much it will buy, I am as free as any one." If you have to count your pennies you soon learn how much that dollar will buy, and there is no place where you learn it quicker than in your own home when you are buying for the table.

Teach your girls how to buy judiciously. I knew a family of five girls, the father of whom made a comfortable living, and they never expected to be poor. Their mother started them in early to learn to buy for the table. As soon as one girl learned, the next one took it up. When their father died, their money was gone. But every one of those girls knew how to spend a dollar and make it go further than most girls who were as well situated in life. When they married, they were fitted for either a poor man's wife or a rich one's, because they had learned how to manage their servants and themselves.

To my mind, to be a good housekeeper and home-maker is better than a college degree. By that I do not mean that a woman should be ignorant of everything but housekeeping, but I do mean that she should be a good housekeeper as well as a scholar. If you would be "happy though married," you should be a good cook, housekeeper and home-maker.

MARCEL WILLIAMS.

BRAID TRIMMING

BRAID TRIMMING

Arrange the center braid in wheels as illustrated, fastening them as they cross each other. Then make the centers, and join them on the last row to the inner edges of the wheels as you go along. Finish around the outside of the wheels in chain-stitch, catching into the straight braid for the edge. One of the braids can be left off to make the edge. Use a fine steel needle and No. 50 thread. The braids can be purchased by the bolt at any fancy-work store. C. I.

AN OPEN LETTER

I wish to tell the readers of the FARM AND FIRESIDE of two little items that may be useful to them, as they have been to me. Two or three years ago a neighbor told me that in making pie-crust she mixed sufficient lard and flour at one time to do for several bakings, and when she wished to make pies on short notice it was only a few minutes' work to moisten a portion with cold water, then roll out the crust. Since then I have made pie-crust that way altogether, and find it an excellent plan. Allow one cupful of lard to four cupfuls of flour, sift a little salt and a little baking-powder with the flour if you choose, and mix all thoroughly with the hands. I keep mine in a covered tin pail in the pantry, and find it keeps as well in summer as in winter.

From another lady I learned that when eggs are scarce and high, and snow plenty, the latter may be used with good results in place of eggs. Mix the ingredients for the cake called for in the recipe, with the exception of the eggs, and when ready to put into the tin to bake, stir in a heaping tablespoonful of snow in place of each egg. I have tried this and had good success. E. A. J.

RUSSIAN LACE COLLAR

RUSSIAN LACE COLLAR

Collars made of string-color Russian lace braid, with the stitches put in in linen thread of the same color, are much worn, and are a very stylish accessory to a dark blue or black suit. M.

EGGLESS PIES

It is possible to make very good squash and pumpkin pies without using eggs. Put in a little cracker-dust—the finer, the better—say half a cracker to a medium-sized pie. The mixture should be very little thicker than when eggs are used. The cracker is better than either flour or corn-starch, as it is less pasty. When eggs are from thirty-six to forty cents a dozen it is the part of wise economy to use as few of them as we possibly can. S. B. R.

CRESS TRIFLES

Blend one fourth of a teaspoonful of mustard with two tablespoonfuls of lemon-juice and the same of melted butter. Dip the sprigs of cleaned cress in this mixture, lay between slices (or narrow strips) of buttered bread, and serve.

Save Your Kitchen Grease

Easy and quick is soap-making with

Banner Lye

With one can—10 cents—you can make ten pounds of pure hard soap or twenty gallons of soft soap in ten minutes.
No boiling, no large kettles required.

Dissolve a can of *Banner Lye* in 3½ pints of cold water. Melt 5½ pints of clean grease. When cool, pour the *Banner Lye* water into the grease, and stir for a few minutes.

This will make better soap than you can buy.
Send for our free book,
"Uses of Banner Lye."
It is full of information of interest and value to farmers, dairymen and housekeepers.
Any store-keeper can sell you *Banner Lye*. If he hasn't it, he can get it quickly of his wholesaler.

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Eczema

Salt Rheum, Ringworm, Itch, Acne or other skin troubles, promptly relieved and cured by

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This scientific germicide, which is harmless, **cures by killing disease germs. Used and endorsed by the medical profession everywhere.** Sold by leading druggists. If not at yours, send 25 cents for a trial bottle. The genuine bears my signature. Accept no substitutes. Address

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FREE Valuable Booklet on the treatment of diseases.

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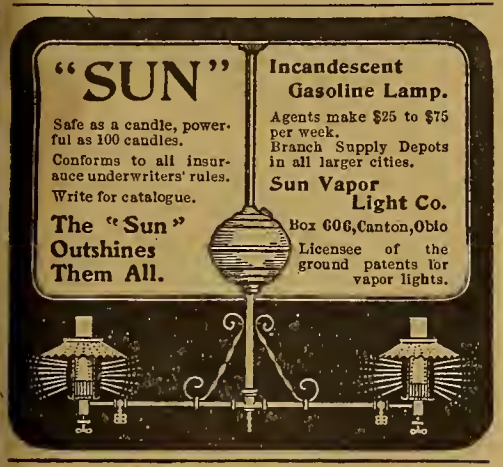
Safe as a candle, powerful as 100 candles.
Conforms to all insurance underwriters' rules.
Write for catalogue.
The "Sun" Outshines Them All.

Incandescent Gasoline Lamp.
Agents make $25 to $75 per week.
Branch Supply Depots in all larger cities.
Sun Vapor Light Co.
Box 606, Canton, Ohio
Licensee of the ground patents for vapor lights.



SOLD! UNDER A Positive Guarantee

to wash as clean as can be done on the **washboard**, even to the wristbands and collar of the dirtiest shirt, and with much more ease. This applies to **Terriff's Perfect Washer**, which will be sent on trial at wholesale price. If not satisfactory, money will be refunded. **AGENTS WANTED.** For exclusive territory, terms and prices, write
PORTLAND MFG. CO., Box 27, Portland, Mich.

"Don't Wait Till Spring"

Buy an **ARRAS CREAM EXTRACTOR** for your own convenience now. A wonderful invention for handling milk in winter as well as summer. Best constructed extractor made. Beware of complicated eccentric levers. Most profitable way of handling milk. Milk and water are not mixed, having undiluted skimmed milk to feed soon pays cost of extractor. It saves all can lifting, skimming and washing of crocks and pans. Write for catalogue. Agents wanted.
ARRAS CREAM SEPARATOR CO.
Pat. May 21, 1901. **Bluffton, Ohio**

It's in the Grip

With a **Triumph Cap Wrench** a child can twist off the cap from a sticky maple syrup or greasy oil can, which without the wrench would baffle the powers of a brawny blacksmith.

Send 6 cents for sample No. 216.
FORBES CHOCOLATE CO., Cleveland, Ohio

WE OFFER $150 A MONTH AND EXPENSES SALARY or COMMISSION
To Good Men and Women introducing our **King Butter Separators.** Produce Best Grade of Butter from Cream or Milk, Sweet or Sour, in less than 5 Minutes.
THE WILLARD MFG. CO., Dept. 52, Chicago, Ill.

DAHLIAS 20 kinds $1. Pan-American Gold Medal. H. F. Burt, Taunton, Mass.

The Housewife

"HELP THOSE WOMEN"

Some women can always find ways of helping the women who need help, while others only wish they could, but are not resourceful in plans.

To our city came a woman who must earn money, and who was not young nor trained for any wage-earning occupation. She obtained the agency for selling "Chautauqua Files," which the readers of the Farm and Fireside may know are for filing away newspaper clippings in place of the old way of pasting. The method of labeling and indexing is very complete. But any semblance of a book-agent receives little consideration from our busy women the world over. Fortunately for this agent, her files and her need came to the notice of a literary woman who had made a lifelong practice of helping women help themselves, and she saw the merit of the files at once. This woman purchased two sets of files, ten in a set. One set she kept and valued, the other set she distributed among ten of her friends, one file to each. She hastened to arrange a few of her own files. One file she devoted to scraps of the life and death of Queen Victoria. It made an interesting book, which she placed in the working-library of her study. Next she sent out invitations to the ten ladies to whom she had given the other set to come to lunch, and bring their files and newspaper clippings. They had saved at least part of the clippings. The note of invitation said: "I have been practising, and can show you how to use the file to advantage." Her hospitality was proverbial, and there was always something new by way of entertainment.

Nothing was said about the files as the guests arrived, but at the dinner-table the places were marked with pink pasteboard cards, a small ribbon in the top. On every card there was also a rhyme in which was some reference to the word "file," though not always spelled in that way. The little rhymes on place-cards never become an old story, for each time they are new, and so it was at that lunch. Any person living in a large town or city can purchase cheaply from a printing-office cards cut out of different colored cardboard, and they help out in many entertainments. The cards used at this lunch were somewhat smaller than postals. The following are a few rhymes, though nearly every one can "turn a rhyme," as the girl said:

Although you may not think it so,
  You're very good, I see,
To come to-day to be engaged
  In such phil—anthropy.

A man who had his head just full
  Of bits of knowledge, used to smile,
And say to all he chanced to meet,
  "I'm quite a literary file."

In single file and double file
  Things clipped stand in array,
And all the things she'd like to keep
  Just let her file (letter-file) away.

The social column of a daily paper was not slow to tell of the "file party." The agent for the files thus had a deal of free advertising, and her success was assured.

I tell this story as a hint to helpfulness to other women. Perhaps the woman can bake bread; perhaps she can make unusually good fried cakes, or rebind dress-skirts that are nearly always worn at the bottom. Let's help her if we can. She does not want charity, but the independence of work. Mary Joslyn Smith.

DO YOU KNOW

That a panful of lime kept in the cupboard with your jams and preserves will prevent molding?

That you can clean plaster ornaments, vases, etc., with clear starch mixed with water? When dry, brush off.

That a few drops of lemon-juice improve scrambled eggs? It should be added while the eggs are cooking.

That equal parts of water and skimmed milk, warm, will remove fly-specks from varnished woodwork or furniture, and make it look fresher?

That a strong solution of alum-water poured over places infested with ants, cockroaches or spiders will disperse these troublesome visitors?

That milk is an excellent substitute for soap in washing dishes? It softens the water, and at the same time prevents your hands from chapping. A small quantity will answer.

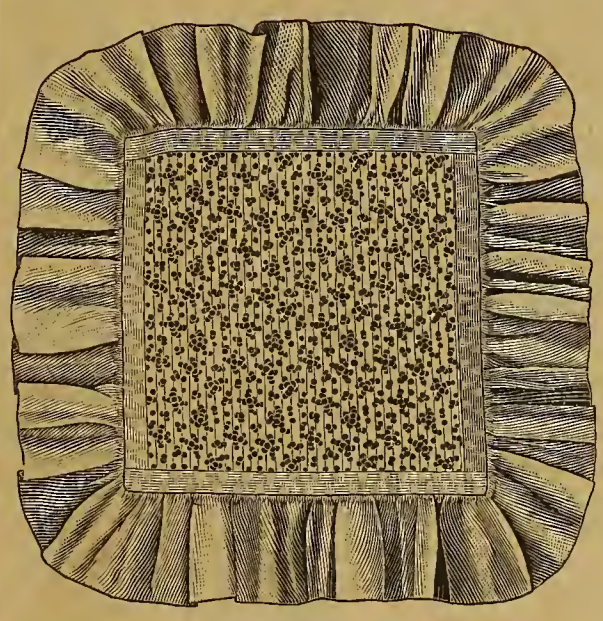
That hot water will take out every kind of fruit-stain? Pour the water on the discolored parts before washing, and the table-cloth, or whatever it may be, will come back as good as new.

That coffee-grounds kept in a sink-strainer will catch grease, and thus prevent the clogging of the pipes? Pour your greasy dish-water over the grounds in the strainer, and your sink-pipes will be free from grease.

That a tablespoonful of olive-oil taken three times a day will cure indigestion, banish sick-headaches, and make a thin person fat? A sprinkle of salt will make it more palatable. This was told to me by an old German doctor.

That salt-water is preferable for cleaning bamboo furniture, as it prevents it from turning yellow, and is also good for wiping Chinese or Indian matting? It is good to soak your aprons, etc., in strong brine after the fall butchering, as it tends to remove all stains of blood, leaving the aprons as white as snow.

That by mixing enough flower of sulphur with a pint of water to give a golden tinge, and in this boiling three bruised onions, you can renovate your gilt picture-frames? This mixture will also keep flies from specking the frames. The mixture must be strained, and applied to the frames with a soft brush. W. D. Marsh.



HANDKERCHIEF PILLOW

HANDKERCHIEF PILLOWS

These pillows are very pretty, and they also launder well. They are made of gentlemen's handkerchiefs of good size, with two ruffles of India linen. The pillow illustrated is red on one side and dark blue on the other, with a white India linen ruffle on the red side and a pale blue India linen ruffle on the other. M.

A KITCHEN HELPER

A simple but step-saving device in my tiny kitchen consists of a three-foot piece of hose which is just large enough to fit tightly over the water-faucet, and serves as a means of conveyance to the desired parts of the room. For instance, if the tea-kettle is to be filled, instead of carrying the water cup by cup or holding the kettle under the faucet and receiving a steam-burn, simply direct the end of the hose to the kettle on the stove, and the work is accomplished without lifting or taking unnecessary steps. This is especially nice when tubs or wash-boilers are to be filled, and will be deemed a very convenient little helper by those who try it. Try also putting your bread in a sunny window to raise.

Jean Clayton.

FLORAL BUTTERFLY PLANT

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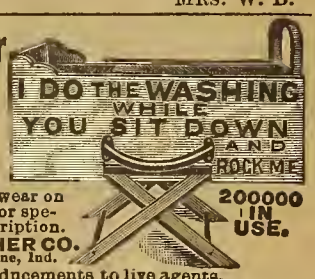

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Josephine

Winning a Cold Sweetheart and a Sunny Home

By FRANK H. SWEET

CHAPTER V.

THE OWNER OF THE LAUNCH

WHEN they left the ferry-boat on the east side they were accosted by a man who had evidently been watching for them. "Ye're the folks that crossed the lake in my launch, ain't ye," was his grim salutation.

Spencer gave him a brief glance, and would have passed on, but the man stepped directly in front of them. "No, ye don't," he snarled. "Ye've been usin' my launch, an' I want pay fer it. Ye needn't try to slip off, an' ye needn't try to bumfoozle me, 'cause I won't stand it. I'm mad."

Spencer's lips tightened a little. The man was mad—his red face and bristling attitude was evidence of that. He was a broadly built, squatty fellow, clad in a red shirt open at the throat, much-worn corduroy trousers and home-made alligator-hide boots. A straw hat lacking much of its brim flapped down over his eyes. His legs were wide apart and his fists clenched. Whatever his reason for stopping them, he was unquestionably mad.

Josephine was regarding the two men in amused silence. Spencer noticed this, and his lips relaxed. After all, it was more of a joke than a reason for losing his temper. If Josephine did not mind, he would not. Besides, they were in sight of the hotel, and probably a dozen or more of the guests were looking at them. "I see no reason for stopping us, my good sir," he said. "If the launch is yours, as you say, you should look to the man who was running it. We paid him. In fact, I would be glad to see the man a few minutes myself. He treated us rather scurvily."

"Skun ye, did he?" said the man, indifferently. "Well, I'm glad on it. But that ain't nothin' to do with the boat. He skun me a foot thick, an' now he's left the launch over on t'other shore, with the engine busted. It'll cost me plumb twenty dollars to git the thing fixed. An' that ain't all. I'm two days out huntin' him down, with 'gator orders runnin' over; an' then thar's the damage to my feelin's. Whoo-ee! I'm mad!"

"So I see. But where do I come in?" said Spencer.

"Anywhere to help fix the hole. That feller took the train to Jacksonville, an' I ain't no money to foller him up, an' you folks is the only ones that I've got any sort o' holt on. Ye've been in my launch, an' it stands to reason ye must pay me fer it."

"About how much do you think we ought to pay?" asked Jospehine, seriously.

The man hesitated, and looked from one to the other doubtfully. Evidently he had not thought his demand would be acceded to so easily. "Wall, I dunno, hardly," he said at length, his tones considerably mollified, "'cause I don't want to be harsh with ye, an' 'cause I want all I can git. I'm a 'gator-hunter myself, an' don't know nothin' 'bout launch-lettin' or the prices got; but I've heered as how money's like water up here. Ye see, that feller bunked 'long o' me one night with a hard-luck story, an' the next mornin' he lit out with the launch an' ninety cents in cash."

"Do you always hunt alligators with a launch?" asked Spencer.

"Nót 'cept we're pretty high-toned." The red face broadened into a grin. "I'm that way, fer there ain't 'nother hunter in the swamps that's got a launch. I picked mine up at a wreck two years ago, an' find it mighty handy to git 'round quick. But s'pose we go back to the money. I'm strapped, an' fixin' the launch will be twenty dollars, an' gittin' back home will cost nigh on to four more—fer ile and stuff to eat an' things, ye know."

"Do you expect us to pay all that?"

"O' course," with some surprise. "I ain't no money, an' that's what the cost'll come to. I ain't askin' a cent extra fer myself. An' money's like water up here with you folks. I know a feller who guided a party o' you North'ners to whar they could shoot three big 'gators, an' they gave him twenty dollars jist fer that; an' he got the 'gators, too. 'Twas like goin' huntin' fer himself an' they furnishin' ammunition an' extra hands fer nothin'. An' then, ye know, my launch was broke."

"Well, I'm sorry," said Spencer, placing his hand quietly but firmly upon the man's shoulder, and pushing him forcibly aside; "but I don't feel that we can help you any. We paid a very good price for our few minutes' use of the launch, and for satisfaction you must look to the man who had charge of it. You certainly cannot expect us to pay for his mischief."

The man's countenance changed from confidence to surprised disappointment; but something in Spencer's eyes and in the firm hand which had rested for an instant upon his shoulder kept him from resenting his manner of leaving the path. "Ye won't pay nothin', then?" he questioned.

"Not a cent," replied Spencer, decidedly.

The man gave a prodigious sigh. "Wall, if ye won't, ye won't," he grumbled; "an' that ends it. I can't 'ford to go to law with nobody, but I will say it's dog-gone mean o' ye. Folks needn't ever tell me any more that money's like water up here. All's left fer me now is to sell my land. Don't want to buy no land, I s'pose?" he asked, a more hopeful note coming into his voice.

"No."

"It's mighty good land," insinuatingly, "an' in a growin' neighborhood right here on the lake. I stopped here, an' took up a homestead when I fust come to Florida. Thar's thirteen acres left, an' it runs right down to the water. Wouldn't ye like to look at it?"

"No."

"Was a hotel thar one time," the man went on, "but 'twas took down fer some reason or t'other. Barton wa'n't no man o' enterprise. But it's mighty sure to go up again an' take land prices along. An' then thar's a mighty pretty little vine-covered cottage on t'other side, owned by a widow an' her darter."

Spencer and Josephine had been walking along slowly, with the man keeping close beside them, talking and appealing to first one and then the other. During the last few sentences Spencer's face had been showing more interest. Now he turned suddenly. "Are you talking about that strip of land between the Barton place and Mrs. Carruthers', on the other side of the lake?" he demanded.

The man stepped directly in front of them

"I don't know Mis' C'ruthers, but s'pose mebbe she's the widder. My place jines Barton's on the village side, an' I'll sell it—"

"How came you to own the land?" Spencer interrupted. "Can you give a clear, undisputed title?"

"I 'low the title's all right," the man grinned, "fer it's straight from the gov'ment. I took the land up as a homestead more'n twenty years ago, an' traded off part fer a sail-boat which got stove up in a gale, an' part fer one thing an' part fer 'nother. Now I've got that thirteen acres left, an' I'm jist as much strapped as I was when I fust took up the land—more, fer I could shoot plenty o' birds an' deer then, which have lately been driv' off, an' now I ain't nothin' to fall back on but shootin' 'gators or sellin' land. An' that takes me 'round to the price. How much can ye bring yerself to pay fer the land? Remember, ye was out in my launch, an' it's damaged twenty dollars."

"I haven't said that I wanted to buy the land yet," declared Spencer.

"No, that's so." The man looked at Spencer through the corner of his eyes, and some of the newly acquired confidence went out of his manner. Presently he stepped around to the side of Josephine. "Ye've got the business sense o' the fam'ly," he said, in a low voice, "an' can see fer yerself how things are boomin' up here. Bime-by thar'll be housekeepin' expenses, tin pans an' tubs an' things, an' mebbe a nice little weddin' trip, an' they's all goin' to cost like smoke. When a stranger like me can see the man's helpless in money-gittin', it's plain which side o' the house must figger on the futur'. Now, 'most anybody can see money's goin' to float 'round here, 'specially 'tween the Barton place and that Widder C'ruthers'. What I 'vise ye, miss, is to jist have this feller o' your'n buy them thirteen acres. Ye can make him do it. An' bein' a gal, I'll let ye make it over to him fer only two thousan' dollars."

"That's what I've been waiting for—to hear you name the price," said Spencer quickly. "I was afraid that if I showed the least interest your price would be in proportion to what you wanted for us being in your launch a few minutes. Do I understand that you will let me have the thirteen acres for two thousand dollars cash?"

The man hesitated a little in the face of Spencer's undisguised eagerness, realizing that he might just as well have asked more. But it was too late now. "Why, yes, I reckon ye can have it fer that," he answered. "But thar's the twenty dollars on the launch."

"And you can give a clear title?" asked Spencer.

"Good's gov'ment bonds. But countin' in the launch, it really ought to be two thousan' an' twenty-four."

"Well, I'll tell you what I'll do," said Spencer. "If everything is as you say, I'll take the land and give you a fair price for it. I was ready to pay four thousand for the Barton place, but the owner doubled his figures, which already seemed to me as much as the land was worth. Your tract has three more acres, but it's covered heavily with palmetto, which will be costly to clear. However, I think the three acres will just about meet this expense. So I'm willing to give you the same price that I offered Mr. Barton."

"Not four thousan' dollars?"

"Yes, four thousand dollars cash."

The man's mouth opened in a prodigious gasp of astonished ecstasy. "Great guns!" he ejaculated. "Four thou—" Then the mouth closed suddenly. "'An' ye'll add the twenty-four extra fer the launch?"

"No, just four thousand straight. You will have to bear the expense of refitting the launch."

"Well, if I must, I must; but it's bound to come pretty hard on a man who's strapped. An' I guess ye can have the land fer what ye say. I s'pose ye're ready to fix it up right now?"

"Certainly."

"Wall, we'll have to go back on t'other side to find a lawyer or somebody to make up the papers; an' thar's men on that side who used to know me, who'll tell ye that I own the land all right." He thrust his hands into his pockets in careless affectation of indifference; but catching sight of an amused twitching at the corners of Josephine's lips, his face broadened into an involuntary grin. "Wall, I be in kind o' a hurry to git the money," he confessed. "It's more'n I ever expected to have in this world, an' it's bound to set me right up. I don't s'pose he's apt to back out, though?"

"No, indeed," answered Josephine. "Mr. Grant's word is just as good as though it were on paper."

"Then it's all right," the lost trace of anxiety leaving his face; "an' such bein' the case, I'm free to say your feller was a blame fool fer namin' four thousan' when two would have done jist as well. An' that bears out what I was sayin' jist now," grinning at her philanthropically; "ye must be the side o' the house to figger on the futur'. He ain't no sense o' money."

[TO BE CONTINUED]

Turn, Fortune, turn thy wheel and lower the proud;
Turn thy wild wheel through sunshine, storm and cloud;
Thy wheel and thee we neither love nor hate.

Turn, Fortune, turn thy wheel with smile or frown;
With that wild wheel we go not up or down;
Our hoard is little, but our hearts are great.

Smile, and we smile, the lords of many lands;
Frown, and we smile, the lords of our own hands;
For man is man, and master of his fate.

Turn, turn thy wheel above the staring crowd;
Thy wheel and thou are shadows in the cloud;
Thy wheel and thee we neither love nor hate.

—Alfred Tennyson.

THE SONG OF THE WORLD

Action, unceasing endeavor — whether with brain or with brawn;
Singing of hammer on anvil, thrust of the plow through the soil,
Thought born of thought in the night-time, ax-stroke in silence of dawn,
Solving the secrets of science—secrets that guerdon our toil.
Action, strong effort forever—this is the life of our time;
This is the heart-throb of Manhood, the pulsing of purpose sublime.

Flickered the glave long in battles, carving the future of kings,
Cutting the fetters of bondmen, doing God's will in his way;
Now in its scabbard 'tis sleeping, here on the wall where it swings,
Dust on its hilt and Time's sharp teeth eating its edge day by day.
Hauberk nor casque brought it harming, yet all of its temper is gone—
Vanished its puissant prowess—to-day labor rolls the world on.

Tides of the amorous ocean strive for the kiss of the moon,
Rivers, full-bosomed and brimming, bring their broad blessings to men;
Health from their restlessness rises, but in the stagnant lagoon
Born is the pestilent vapor—born in the death-breeding fen.
Water, life's limitless solvent, its blessings will freely disburse;
When it is stagnant and pulseless, lo! it is turned to a curse.
Action, untiring and constant—this is the law of our breath;
Live, then, O brothers who labor; labor that ceases is—death.

—Robert Mackay, in Success.

"SIS FID"

BY CHARLES McILVAINE

It was where choir-birds are plentiful, where wind-pipings are low and sweet, where the comforting croon of the negro "mammy" is the first sound nursed within the cuddles of a baby's ear, that Réne Carew was born. No wonder, then, that gladness was in her heart as she grew, and music tingled her every fiber to tell of it. Before her baby fingers could clasp the neck of black Aaron's fiddle, she used to put it over her shoulder, sweep the bow across the strings, then listen long to the flow of sound as might a sprite to the song of a shell. Then would old Aaron, sooty as a chimney's throat, raise his hands, and say, devoutly, "Dat chile hain't fo'got de music she heered in hebben, whah she come frum, yit." And his old wife, Thursa, the "mammy," would chuckle, lovingly, "Bress you, Aa'on, she's jist de mockin'-bird obah ag'in, de way she cock her little haid."

Réne Carew was eighteen now. As she stood by a Gothic pillar of the home porch, her lithe form draped in a loosely banded gown, the smooth of her flaxen hair burst here and there by curls in rebellious frowziness, she reminded one of what he sees in art when a Roman maiden of the olden time stepped out to take an airing. One arm lovingly nursed a violin; the other hung by her side, its hand holding the bow. Her whole attitude showed that she was calmly settling a very important matter. Suddenly her eyes sparkled, her face told of happy resolve. She gave the violin an impulsive hug, and exclaimed, with quiet determination, "We'll do it, Sis Fid! We'll do it, you dear old fiddle!"

From the time Réne Carew's baby sister was born, when Réne was too small to be trusted with anything alive in her arms more breakable than a kitten, she had affectionately looked upon old Aaron's fiddle as a thing of life, and fondly nursed it as Sister Fiddle; which name, owing to the syllabic economy of childhood, was contracted to Sis Fid. Now that she was grown, and possessed the best of violins, she gave to it the loved title and poured into it her most precious confidences, pure as the notes she called from it in answer to her very soul.

"What you an' Sis Fid gwine do, honey? What you got in dat wukkin' brain ob yourn dat you's tellin' Sis Fid 'stid ob yo' ole mammy? Yo' ole Mammy Thursa got some mighty fine tunes in her yit, an' she kin talk mo' sense in

[CONTINUED ON PAGE 17]

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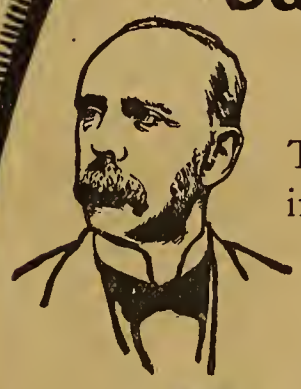
Secretary of the Treasury



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How to Dress

HOUSE-GOWN

All sorts of soft silks are in vogue for handsome indoor gowns, and are very charming in their graceful lines and folds. The stylish model illustrated is of louisine in shades of beige, with the under-bodice of cream chiffon, and trimming of heavy lace in the tawny Arab shade. The waist is novel and admirably adapted to the season's soft, clinging materials, and suits the entire gown and the odd waist equally well. The skirt is one of the latest. It is laid in tucks at each seam, which give the necessary snug fit about the hips and provide flare at the lower portion, where they are left free.

HOUSE-GOWN

SPRING WALKING-SUIT

Walking-costumes made with fitted coats and plaited skirts are among the notable features of early spring styles, and will be much worn the season through. The smart model illustrated is made of cheviot in blended shades of tan and brown, showing an indistinct plaid, and is stitched in tailor style; however, all the season's suitings are appropriate, and heavy linens will be so made for summer wear. The coat is single-breasted and snugly fitted, and can be used as a separate wrap when such is desired. The skirt is admirable for costumes and for the odd skirt to be worn with shirt-waists.

GIRLS' COSTUME

Young girls always look well in plain colors brightened by touches of plaid, and the combination is held in special favor at the present time. The pretty frock illustrated is made of myrtle-green henrietta cloth, with trimming of plaid silk, and is exceedingly smart, but the design can be reproduced in any color and in any of the season's materials. The blouse is made over a fitted lining, and the skirt can be closed at the left side and joined to the waist or made with a placket at the center back and finished with a separate belt, as preferred. Both blouse and skirt are laid in tucks that are turned toward one another and between which the plaid silk is applied. The skirt is cut with a front gore and circular sides, lengthened by the flounce. The tucks are left free at flounce-depth to form becoming folds.

VISITING-GOWN

Shirt-waist suits of foulard are among the things which have taken a permanent hold on the fashions and will be much worn during the spring and summer months. The smart model illustrated is shown in pale green satin-faced foulard, with figures of white and black, and is trimmed only with stitching and collar and cuffs of dotted green velvet; however, it suits all linen and cotton fabrics as well as foulard. The waist shows the wide box-plait that marks the season, and includes a novel stock. The skirt is seven gored, and is laid in groups of tucks, that conceal the seams.

INDOOR DRESS

Shirt-waists of cotton cheviots, madras and linen are much worn with skirts of black etamine or canvas. The stylish example illustrated is of mercerized cheviot in blue and white, and the skirt is of medium-weight canvas. The waist is plain, in tailor style, and includes the fashionable box-plait and the latest sleeves. The skirt is made in three portions, joined beneath the wide, horizontal tucks that are now so much the fashion.

SEPARATE WAISTS

Many of the soft silk and crêpe de chine waists are made with yokes of alternate rows of herring-bone braid and narrow folds of the material or silk ribbon. The material looks more dressy than the ribbon. French dots are sometimes applied to the inserted bands.

Other very smart shirt-waists are made of English corduroy, preferably white, with wide box-plaits set far apart and no trimming except large pearl or enameled buttons. Other exceedingly smart and very expensive waists are about as cheap as anything to be had when made at home. These are of wool and canvas cloth, of which the white variety is the thing, made with two or three plaits in the back and a plain bloused front. The front is covered with a wide, sprawly design in Oriental patterns, and worked in Bulgarian embroidery. The outlines are nearly a quarter of an inch in width and embrace a number of the dull, rich, washable colors that come in Bulgarian embroidery wools and cottons. These outlines twist in and out in open and easy patterns, the rich effects being produced by the mingled colors. Bulgarian yarns are very coarse, so that a few chain-stitches or simple, loose over-stitches soon fill up the space in each outlined design. The edges are usually of a single thread of the yarn, held in place with invisible stitches or put on in outline-stitch.—New Orleans Picayune.

GIRLS' COSTUME

VISITING-GOWN

SPRING WALKING-SUIT

INDOOR DRESS

Any of these patterns furnished from this office for ten cents.

Indoor Dress.—Plain Shirt-waist No. 4349. In sizes 32, 34, 36, 38, 40, 42 and 44 inches bust measures. Skirt with Circular Yoke No. 4352. In sizes 22, 24, 26, 28 and 30 inches waist measures.

Visiting-gown. — Blouse Waist No. 4325. In sizes 32, 34, 36, 38, 40 and 42 inches bust measures. Seven-gored Tucked Skirt No. 4348. In sizes 22, 24, 26, 28 and 30 inches waist measures.

Girls' Costume.—No. 4342. In sizes for girls 8, 10, 12 and 14 years of age.

Spring Walking-suit.—Coat No. 4343. In sizes 32, 34, 36, 38 and 40 inches bust measures. Nine-gored Box-plaited Skirt No. 4337. In sizes 22, 24, 26, 28 and 30 inches waist measures.

House-gown.—Fancy Waist No. 4346. In sizes 32, 34, 36, 38 and 40 inches bust measures. Seven-gored Skirt No. 4348. In sizes 22, 24, 26, 28 and 30 inches waist measures.

"SIS FID"

[CONTINUED FROM PAGE 15]

fibe minutes dan you kin saw out ob dat fiddle frum now to kingdom come," said the old negress, Thursa, who had crossed the porch silently with slippered feet, and now stood listening behind Réne, the joy of her days, her old hands trembling to lay themselves fondly upon her.

"It is a great secret, Thursa—so big that I am afraid Sis Fid will tell it. I know I shall be thinking about it while I am practising, and Sis Fid tells everything I think. I cannot help it. Last evening I was sitting here on the edge of the porch, fiddling and wondering whether the dark river down there ever went back to tell the springs how sorry it was for running away from their sparkle and bubble and chatter down the hills; for I felt how glad I was to get back from nobody New York to somebody home here, where I can bubble and dance and be everybody, even if you all do think I am as crazy as that zigzagging butterfly yonder. I got to thinking how good papa and mama were to stint themselves, send me and Sis Fid to New York, and get us the best of masters to teach us to be real, first-class, hoity-toity, away-up-among-the-top musicians. Some sort of a gate lifted in the back of my head, and in poured oh, such sweet music!—full of beautiful themes and harmonies. It ran all over me—clean down to my toes and up my back—and got all mixed up with my love. Then on and on it went, up my bow and out my fingers to the strings, until Sis Fid grew so happy and grateful and loving that the mocking-birds sang back to her and the echoes learned her song note for note. I forgot Sis Fid was telling on me until papa came and kissed me, and mama put her dear arms around me, and said, so sweetly, 'We know it, Réne darling; we know it.' Sis Fid, I'll hug you for that!"

"Dat you will, honey, an' hug yo' ole mammy, too. But if you got themes an' ha'monies in yo' haid you got to come in de house till I comb 'em out. 'Tain't no place fo' 'em. An' if you got creeps in yo' back, you got to tak' some quinine."

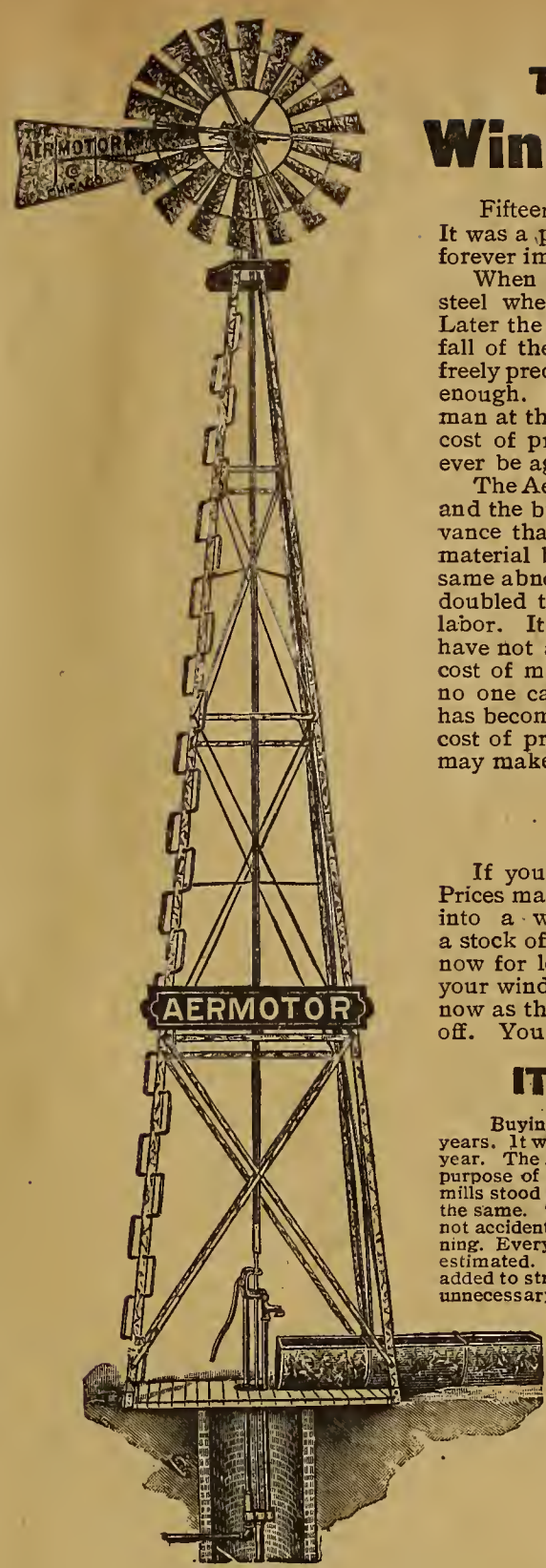
Réne laughed merrily as she patted Thursa's cheek. "I must tell you our secret first, you dear old mammy. I cannot hold it in. I am as puffed up with it as—as a soap-bubble. I want you to help us carry out our plan. Sis Fid and I have made up our minds. We are going to do it; that is as settled as—as a horse-block. Promise me you will. You will, won't you?"

"Dat I will, honey, sho's guns is i'on. Yo' ole mammy nebber had to gib you a take-back promise yit. Yo' ole mammy knows dat dar's no mo' sin in you dan dar is in yo' white dress, dat I done sta'ched an' i'oned myse'f."

Again Réne patted Thursa's cheek, and smiled. "Now I will tell you. It is a stu-pen-dous secret. Two years ago Sis Fid and I talked it over, and we made up our minds that every girl ought to learn how to earn her own living. Why, Thursa, if I was as rich as a queen, I'd imagine I was a poor girl, and I'd do something every day, with my own hands, to earn enough to keep me. Then, don't you see, I'd have all my riches for spending-money. I told papa that Sis Fid and I wanted a great master upon the violin to teach us; then we could play at concerts and earn lots of money, and pay back what it would cost him. We would make everybody love us by fiddling their hearts from them whether they would or not. Oh, I love music so! Papa knew it. He had a talk with mama; and Thursa, do you know, when I saw the tears come in mama's eyes, all the music went out of me, and I actually smacked Sis Fid for thinking of such a thing as going away from her? But papa came to me, and said, 'Yes, dear.' Then all the music came back—even my ears sung. I hugged Sis Fid, and kissed her, and we promised to work hard. Oh, how we have worked! Six hours a day practising, two hours a day at lessons with the kindest and greatest teacher in New York. In the evenings we went to fine concerts, where we listened and watched and learned how little we knew; and then went to work harder and harder. It is grand to have music in you, Thursa, but it is grander to get it out so that others may feel it swell and grow until it fills them to running over with peace and comfort and joy."

"Yes, I knows dat, honey. When I

[CONCLUDED ON PAGE 19]



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The Aermotor went everywhere. Where one went others followed rapidly, and the business soon reached immense proportions. By foreseeing the advance that came with prosperous times, and purchasing large quantities of material before prices advanced, the company has been able to continue the same abnormally low prices for three years in the face of a market that has doubled the cost of material and added a large percentage to the cost of labor. It did this in the hope that iron and steel would come down, but they have not and there is no prospect that they will. On the other hand, the cost of material and labor is constantly increasing. How far this may go no one can predict. To meet present conditions, a small advance in prices has become necessary. This advance does not nearly represent the increased cost of production, and it is quite probable that increasing cost of material may make further advances necessary.

THIS IS THE TIME TO BUY

If you expect to need a windmill this year, now is the time to buy. Prices may soon go higher. They certainly will not be lower. Money put into a windmill now will be well invested. Many dealers bought a stock of Aermotors before the recent small advance and will be able to sell now for lower prices than later. If you buy now you will be sure to have your windmill up and ready when you need it. Windmill men are not so busy now as they will be later. You may be disappointed if you put the matter off. You will not miss it if you buy now.

IT IS IMPORTANT THAT YOU BUY RIGHT

Buying a windmill is an important matter. You will have to live with it a good many years. It will either lessen your burdens or add to them. Water is needed every day of the year. The Aermotor was made to pump it for you. It has never failed to carry out the purpose of its creator. The first Aermotor distinguished itself by running when all other mills stood still. Each one of the succeeding hundreds of thousands of Aermotors has done the same. The reason for this is simple enough. The Aermotor was the result of design, not accident. It was made for a purpose, and that purpose was well understood in the beginning. Every requirement was carefully determined in advance. Every strain was accurately estimated. Every pound of material was arranged to the best advantage. Simplicity was added to strength. Each object to be accomplished was aimed at directly. There were no unnecessary parts, no wasted material, no stupid devices.

An Aermotor once properly erected, requires no adjusting or tinkering. This is the result, not only of perfect design, but of proper construction. The best material for each part has been carefully determined, and only the best is used. Much of the material in the Aermotors is specially made for that particular purpose. The very stiff sheet steel used in the sails is made only for the Aermotor Company. Even the Babbitt metal used in the bearings is specially made to meet the peculiar requirements for a windmill.

THE AERMOTOR COMPANY KNOWS WHAT IS BEST IN A WINDMILL

It is not a difficult matter to make a windmill. They have been made for centuries. It is, however, a difficult matter to make the best that can be made. To do that requires peculiar skill and ingenuity. The Aermotor Company, alone, has shown remarkable originality or genius in the business, It has had more experience than all others combined in making steel windmills. Isn't it fair to conclude that it knows what is best in a windmill? The best costs no more than an inferior imitation. If you buy anything less than the best you do not get the most for your money.

But the best may be a dismal failure if poorly erected. The erector must know how to plan the job, get the parts together properly, and detect the least thing wrong with its working. Aermotor dealers know how. They are selected for that reason. Most of them have been handling the Aermotor from the beginning. They are men of trained judgment and mechanical ability. To get the best out of the best mill, one of them should erect it for you.

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The Young People

TOM TRUMAN'S TEMPTATION

HOW HE SUCCESSFULLY RESISTED IT, AND THE REWARD HIS ACTIONS BROUGHT HIM

BY WILL S. GIDLEY

"I SAY, Tom, I can tell you how to make some money if you've got the spunk to try it."

"How is that, Frank?"

"Why, by investing a few dollars on the races."

"You mean gambling?"

"No, I don't. I don't call it gambling. It is betting, I suppose, but I don't see anything wrong in that. Everybody does more or less betting, and if I can win a few dollars on a horse-race now and then I can't see what harm it is going to do me or anybody else. Now, Tom, I've got a sure tip on Mountain Boy for the three-year-old sweepstakes this afternoon. He's bound to come in a winner, and if you will lend me twenty-five dollars we will go in together and make a good thing out of it. The odds are four to one against him, and if he wins—as he is sure to do—that will make just an even hundred dollars to be divided between us. How does that strike you for one afternoon's work?"

"Well, Frank, I'd like my share of the hundred dollars well enough, but I wouldn't care to get it in that way. Somebody would have to lose the hundred that we won, wouldn't they?"

"Yes, I suppose so; but that is all in the game. They've got to take their chances, and if we didn't win it some one else would, so I don't see why we shouldn't make a few dollars when we've got the chance, just as well as to let somebody else have it."

"I can't agree with you on that point, Frank. I don't believe in getting money in that way; and besides, I haven't the twenty-five dollars to loan you, even if I did. I always give my wages to my mother Saturday night, except a couple of dollars for lunch and car-fare during the week."

"You told me the other day that Brown Brothers were letting you collect their small bills around the city, didn't you?"

"Yes; I have been doing that work for the past three weeks."

"Well, haven't you got twenty-five dollars of their money with you?"

"Yes, but"—Tom flushed with honest indignation—"but you don't think I would use their money, do you?"

"Why not, when you can make a clean fifty for yourself by doing so?"

"Because the money isn't mine, and I've got to turn it in at the office when I get through eating my lunch."

"But you can tell the cashier some of the men didn't pay up and you've got to call again, and then turn the money in after we collect our winnings on the race."

"But suppose we lose instead of winning? What will I do then?"

"Now see here, Tom; I know something about horse-racing, and I am positive Mountain Boy is going to win, and we can make a hundred dollars as easy as turning over your hand; but even if he should lose the race, all you need do is to try your luck again to-morrow, and make enough to square up all you borrowed and leave a good profit besides. I ought to know what I am talking about, because I invested ten dollars of my own money last week, and won fifty just as easy as picking it up in the street."

"What did you do with the money?"

"Oh, I bet it all on another horse the next day, and lost it," said Frank, carelessly; "but I didn't have a straight tip then, as I have this time. Come, Tom, let me have twenty-five dollars, and you shall have it back to-morrow without fail, and fifty more with it."

"No, Frank, I can't do it."

"Why not?"

"For the best of reasons—the money isn't mine."

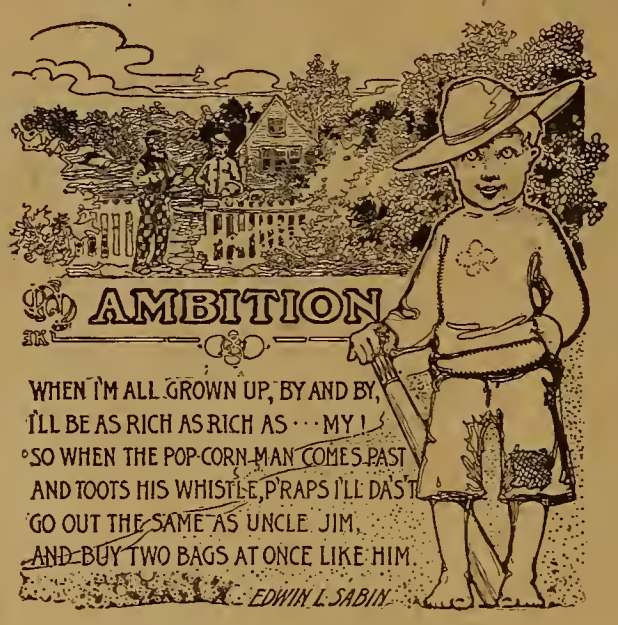
"Nonsense! It's yours until you turn it in. Do you suppose Brown Brothers would ever know anything about it?"

"They might not, but I would, and I cannot do it. Even if it were right to bet money in that way and we were sure of winning, I could not use the cash belonging to my employers. It would be dishonest to do so."

"Oh, you're an old granny! It's a wonder you dare to breathe for fear the air you use might belong to some one else. I'll tell you one thing right now, Tom Truman! If Mountain Boy wins, I'll never speak to you again as long as I live, and I don't know that I shall, anyway; you're most to finicky in your notions to suit me. I was going to pay for your lunch if you had acted like a man, but seeing you've gone back on me the way you have, you can settle for it yourself."

The speaker picked up his check, rose from the table, and strode angrily away in the direction of the cashier's desk.

The above conversation between Frank Gray and Tom Truman—two youths of about the same age, some eighteen or nineteen summers—took place one noon while they were eating their lunch at the Elk Restaurant in a bustling Western city. The restaurant was well filled with people, but young Gray, who had invited Tom in to lunch with him, selected a small table in the further corner of the room, next to the private compartments reserved for dinner-parties and special occasions, and here, safe from being overheard, as he supposed, he had made the proposition which Tom had rejected with the double result of losing Frank's friendship and having to pay for his own lunch.



After Frank had left, Tom picked up the remaining check, stepped briskly to the cashier's desk, paid the amount due on it, and then hastened away to the big wholesale grocery and provision-house where he was employed, to report the morning's collections and turn in the cash.

The next day, when Tom and Frank chanced to meet, instead of passing him by in silence, as Tom expected, Frank sang out, "Well, old granny, did you read the sporting news in the paper this morning?"

"No, I didn't," answered Tom, coloring at the title by which he had been addressed.

"I thought not, or you'd be out in a vacant lot somewhere throwing clubs at yourself instead of slaving away as usual. Mountain Boy won, just as I told you he would, and you could have had fifty dollars to spend or give to your mother just as well as not."

"I wouldn't dare to offer the money to my mother even if I had won it. She would never accept a cent of it if she knew it had been obtained in that way," replied Tom.

"Well, if she is as particular as all that, there are lots of ways you could spend the money. I say, Tom, I've got another sure thing to-day, and I've borrowed some money to put up on it, and if I can get fifteen or twenty dollars more I can make something worth while. You'd better go into partnership with me, Tom, and I'll soon make your fortune."

"No, I cannot do it, Frank. Please don't ask me to again. I don't care for any money made in that way, as I am sure I never should enjoy it."

"Enjoy fiddlesticks! Why don't you say right out that you're afraid, and let it go at that? If I had known you were such an old woman, and coward to boot, I would never have spoken to you about the scheme in the first place. I suppose you'll go and tell everybody I'm betting on the races; but if you do, and I ever hear of it—well, you'll be sorry you didn't keep your mouth shut, that's all!" With this vigorously uttered though somewhat indefinite threat, Frank Gray turned, and walked away.

Several weeks elapsed, during which Tom kept steadily at his work, neither seeing nor hearing anything of his quondam friend, Frank Gray; but one morning he was shocked at reading in the columns of the "Daily Record" the following paragraph:

"Frank Gray, a youth of nineteen, was arrested last night on the charge of stealing one hundred dollars from his employers, Maxwell & Co., of 100 Main Street. He had been intrusted with the combination of the safe, and at the first opportunity he helped himself to an envelope containing this amount, which had been laid aside for a customer. When arrested he confessed the theft, and said he had used the money in betting on horse-races, expecting to replace it; but luck went against him, and he was unable to do so. Thus is added another name to the long list of bright and promising young men who have been ruined by playing the races."

One morning a day or so later the senior partner of the firm for which Tom worked called him into the private office, and after carefully closing the door, suddenly turned to him, and asked, "Well, young man, have you heard the news about your friend, Frank Gray?"

"Y-yes," stammered Tom, turning very red, and quaking in his shoes, as he wondered how Mr. Brown happened to know that he and Frank had been friends.

"Used to travel around together considerable, didn't you?" continued Mr. Brown, looking Tom sternly in the eye.

"N-not lately. We—we couldn't agree very well, and I have had nothing to do with him for some time," answered Tom, with trembling voice, but with eyes unflinchingly meeting the gaze of his employer.

"Lucky thing for you that you haven't, or you might have been in the same box. I've had my eye on you and kept myself posted on all your movements since the day you and young Gray lunched together at the Elk Restaurant. I happened to be dining with a friend in the private compartment next to your table, and accidentally overheard your conversation.

"You held out like a man against temptation that time, and I intended calling you into my office the next morning, and commending you for it; but upon second thought I made up my mind to wait awhile and give you a further trial. I thought it probable that young Gray would make more than one attempt to shake your resolution, so I had a man go over your route each day and verify your figures, and I am pleased to say we have found your daily collections and the amounts turned in by you to agree exactly. In other words, you have withstood temptation and proved yourself to be strictly honest and trustworthy; and we need just that kind of a young man to occupy the position of assistant cashier in the office. Mr. Greene has resigned his position to start in business for himself, and if you want the place at twenty dollars a week I shall be glad to give it to you.

"I know you are rather young for a post of such responsibility, but I think you'll do. There, there, my boy, don't go to crying over it! Run home and tell your mother the news, take a day's rest, and in the morning come prepared to go to work at your new position in the cashier's office.

"That's all right, my boy; you needn't try to thank me. You deserve it."

"SIS FID"

[CONTINUED FROM PAGE 17]

sings to Aa'on at nights, when he gits it bad in his back, an' his heart gits thumpin', he says, 'Dat's hebbenly, Thursa. Move de plastahs, an' sing some mo'.' "

The smile Réne gave her, and the love-look from her blue eyes, were to the old "mammy" as flowers and grateful "bravos" to the deserving prima donna. "Here we are, home again, Sis Fid and I. And we know something. When I get a bow in my hand and Sis Fid tucked under my chin, and my cheek giving her the help of a love-touch, something tells me what to do. I tell Sis Fid, and she minds me—even to the tiniest trill and daintiest harmonic. I feel what the masters felt when they conceived and played the wonderful music they wrote for all the world to follow. Sis Fid sighs and trembles, and gives out such waves of tone that I hold my breath to hear them better, they are so lovely."

Réne's face bore the flush of the enthusiast. She was beautiful as she took old Thursa's wrinkled hands in her own, encumbered though they were by violin and bow. Her voice changed, but lost none of its richness, as she told of a joyous determination. "Sis Fid and I are going to earn money. We are going to play at concerts, and private musicales in the houses of the wealthy, and gladly for charity's sake when we are asked. Won't it be a proud day for us when we pay our debt to papa, and send sister to a seminary, and brother Stonewall to college, and have a bank-account, and sign our own checks, 'Carew and Fid?' That is the firm, Thursa. 'Réne and Sis' don't look well on a check. I have tried it. Now, then, the secret is coming. Thursa, if you tell it I will never pat your cheek again. Next week there is to be a great congress of the best orchestras, bands, singers and fiddlers in the whole country—a sort of musical tournament—right here in our city. It will be here for a week. Handsome prizes in money and medals will be given to those who win them. Thursa, Sis Fid and I are going to try to win a prize!"

"Win de prize, honey? Ob co'se you will! I'd jes' laik to see de man dat wouldn't gib it to you. I'd—I'd git Aa'on to butt him, dat I would."

Réne's merry laugh started the birds to jolly chatter. "Papa," she continued, gaily, "has invited Herr Graeff, the concert-master, who is an old friend of his, to stay with us while he is on his Southern visit. He will hear Sis Fid. Maybe he will ask her to enter herself as a competitor for a prize and to play at one of the concerts to be given. Sis Fid will—bashfully, of course—say 'Yes.' We will ask him to say nothing about it here. Papa is too busy to read the programs, and mama will not look at them, so they will have their breath taken away when they see me and Sis Fid, as big as you please, making our bow to the vast audience, and—and we will win! Don't you see?"

"Dat I do! I'll done fix you up myse'f. What you gwine wear, honey? I'll put yo' hair up pompey, an' mak' you look laik de angel dat you am. An' you'll come home wid ribbons frum yo' eahs, like de pigs dat took de prize at de fair."

This time the birds burst into song as Réne's laugh tinkled among the magnolias, but she did not let old Thursa see that it was at her comparison.

From her early years Réne Carew had played well upon the violin. First the hoe-down, jig and hymn tunes old Aaron taught her; then improvisations from the spirit-scores Nature had written within her; later, teachers and masters had perfected her conception and technique, until now her originality, execution and phrasing marked her a virtuoso.

Herr Graeff arrived, and was gladly welcomed. He was astonished, delighted, charmed with Réne's playing. Réne's whole being thrilled with joy when, bowing low with courtly elegance, he kissed her bow-hand, and asked, "You vill blay at vun gonzert for me?"

She modestly told him of her plan for Sis Fid, and as he laughed, and promised secrecy, she joyfully accepted his request.

The night of the concert came. Herr Graeff was to escort Réne to it, claiming her as his guest that he might better help in springing surprise and pleasure upon his friend and host. Réne was in her room, dressed simply, as when she stood by the porch-pillar exclaiming, "We'll do it, Sis Fid! We'll do it, you dear old fiddle!" She had given willing promise to the love-pleading of old Aaron that she would stop at his cabin on her way to the concert-hall, "Fo' jes' one look ob de ole eyes befo' she go to de big fiddlin'." For Aaron was too aged to move from his humble dwelling. Herr Graeff was waiting for her upon the porch. Old Thursa, fussy and exclamatory, had declared, "Now you am done done, honey, jes' perfec' ez yo' mama on her weddin'-day," when the door flew open wildly, and Thursa's little grandchild Tilda, tear-smeared and frightened, sobbed out, "Gran'pap Aa'on say fo' Miss Réne to come quick, an' fetch Sis Fid, an' gran'mam to come, too; he dyin'."

Concert, castles, triumph vanished from Réne's mind as quickly as the light from dancing waves when storm-clouds shear the sun-rays from their carnival. She grabbed Sis Fid (incased against all harm), cried, "Come, Thursa!" sped out of the house and off to the cabin in the "Quarters" where Aaron lay. Old Thursa, dazed, gathered up Réne's summer wraps, and hobbled after her. Herr Graeff, seeing something amiss, followed.

Aaron's minutes were numbered. His heart was struggling with its disease for the last time. His dimmed eyes were fixed expectantly upon the door. As Réne entered and went to his bedside they flashed with gladness, then calmed to satisfaction, love, content. The lamp upon the chimney-shelf shone brightly upon her white-clad figure to line it from dusky surroundings, as that of an angel standing in the gloom. The old man's voice was strong in the stillness. "Ise gwine to glory, honey. Ise jes' waitin' fo' to see you once mo'. I couldn't shet my ole eyes fo'ebbah widout jes' one mo' look, an' my ole eahs couldn't go deaf fo'ebbah 'fo' dey heah Sis Fid ag'in. I heah de angels harpin' an' singin' an' fiddlin', but dar hain't none ob dem kin fiddle's good ez you kin, honey. Fiddle fo' me, honey."

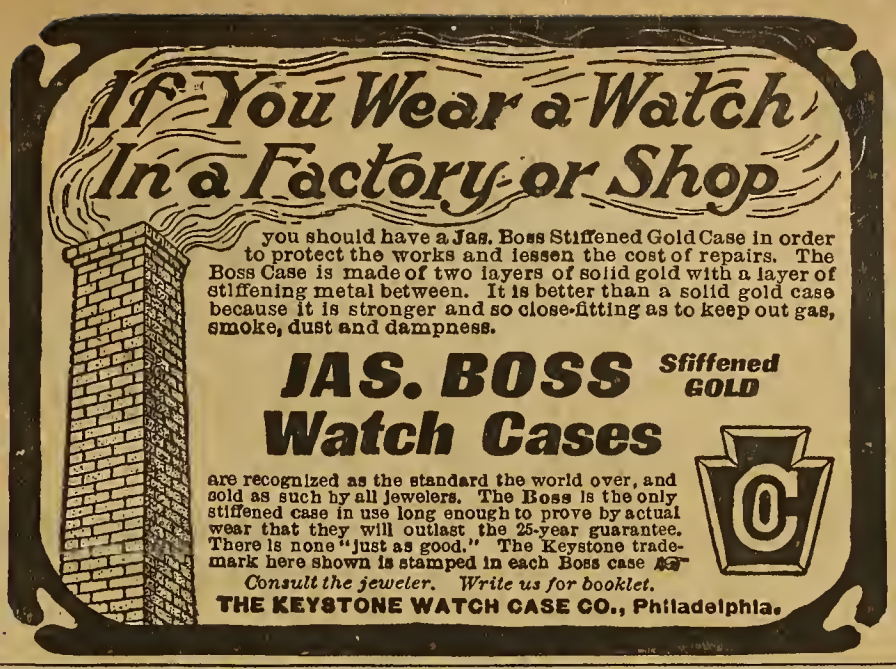
Grief fled from Réne. Joy, joy unspeakable filled her—joy that his sufferings were at an end; joy in the joy of his ending. She took Sis Fid from her case, laid the bow to the strings, raised her eyes heavenward, and filled the cabin from rafter to hearthstone with joyous strains. As the music grew richer and richer from tremulous resonance, the old man's face grew radiant, strength came to his arms. He raised his hands, and clapped them in unison with the throbs of the harmony. "Ise mighty nigh de Kingdom!" he exclaimed, rapturously. "Ise mighty nigh de Kingdom! Come 'long, Sis Fid! Come 'long, Thursa! Come 'long, honey! De Kingdom's heah!" His hands fell in a clasp. Old Aaron was dead.

As the final burst of melody died away, Herr Graeff, who had listened enraptured, lost to all else than the perfect finish of Réne's playing, seized her arm enthusiastically, drew her toward the door, and exclaimed, triumphantly, "Cum! De gonzert! Yust blay like dot!"

The walk from the "Quarters" to the city was short. Not a word was spoken as Herr Graeff hurried Réne along. She walked like one led onward by a happy vision. The vast auditorium was crowded. The overture was ended. Herr Graeff had considerately given Réne next place upon the program, fearing the nervousness bred from waiting. He whispered to the accompanist, and himself led Réne to the footlights. She saw not the pebble-like beach of faces; she heard not the few glad greetings of those who knew her—as she had stood by old Aaron's side she now stood before the multitude. The pianist played the few bars of interlude to the slow movement of the Bruch Concerto in G minor. Instinctively Réne placed her violin in position. Like the sigh of an Æolian its tones mingled with the accompaniment; grew rapturous as she mentally pictured the radiance of old Aaron's face; jubilant as she heard him exclaim, "Ise mighty nigh de Kingdom," and reached the climax of their outburst as he proclaimed in his glorious faith, "De Kingdom's heah!"

Réne wakened dreamily, as if from the passing of a sleep. She saw the faces, she heard the roar of applause, but their meaning was lost upon her. She clasped Sis Fid to her breast, turned, walked slowly to the exit, and knew not herself until she felt her father's arm around her, and heard him whisper, "Darling."

Sis Fid and Réne had won the prize.



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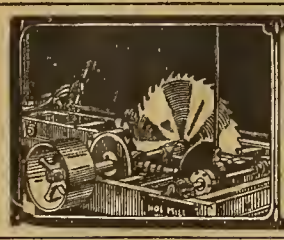

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154b Little Voices at the Door.....*Danks*
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326b Love Divine, All Love Excelling.....*Stainer*
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112b Massa's Sleepin' in de Churchyard.....*Keefer*
230b Memories of My Mother. Chorus.....*Allen*
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222b Musical Dialogue. Duet.....*Helmund*
232b Must the Sweet Tie That Binds...*Estabrooke*
76b My Home By the Old Mill.....*O'Halloran*
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216b Oh, Sing Again That Gentle Strain.*Dinsmore*
228b Old Folks at Home (Swanee Ribber)..*Foster*
270b Old Village Church.....*Hatton*
104b On the Banks of the Beautiful River .....*Estabrooke*
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174b Parted From Our Dear Ones.....*Keller*
304b Did You Ever Call Me Darling?.....*Vane*
128b Don't Drink, My Boy, To-night. Temp.*Hoover*
290b Dream of Love.....*Elson*
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220b Ever Sweet Is Thy Memory.....*Hosfeld*
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182b Father is Drinking Again. Temperance
152b Flag of Our Country. Patriotic.....*Mathiot*
156b Flag, The. Quartet.....*Fox*
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274b Private Tommy Atkins.....*Potter*
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208b Rocked in the Cradle of the Deep.....*Knight*
224b Shall I Ever See Mother's Face Again? .....*Adriance*
332b She's Dreaming of the Angels.....*Estabrooke*
194b She Sleeps Among the Daisies.....*Dinsmore*
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278b Summer Shower.....*Marzials*
32b Sweet Long Ago, The.....*Estabrooke*
206b There's Sure to be a Way.....*Delano*
158b Thinking of Home and Mother.....*Cohen*
334b 'Tis Years Since I Parted, Dear Mother.*Irwin*
292b Titania's Cradle.....*Lehmann*
108b Tread Softly, the Angels are Calling..*Turner*
138b True to the Last.....*Adams*
252b Warrior Bold.....*Adams*
84b What are the Wild Waves Saying? Duet *Glover*
58b When the Roses are Blooming Again..*Skelly*
186b Whistling Wife, The. Comic.....*Randall*
212b Why am I Ever Watching?.....*de Lasaide*
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By JUDGE WM. M. ROCKEL

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RIGHT TO WILL PROPERTY

H. J. M., Pennsylvania, inquires: "Can property which was deeded to husband and wife and their heirs be willed away by the wife?"

Whatever belongs to the wife she can dispose of by will. However, the husband would have a life estate in one third of the real estate, and this would not be changed by the fact that a house thereon was built with the wife's money.

INHERITANCE

J. R., Virginia, inquires as to "distribution of estates."

By the laws of Virginia, real estate passes to the deceased person's children and their descendants. If there are no children, then to his father. The widow is entitled to one third of all the real estate of her husband during life, and to one third of the personal property absolutely.

ADMINISTRATION OF ESTATES

J. S., Missouri, makes inquiry as to "her right to share in the estate of a deceased sister, who died in Iowa."

If there is no will, after the debts are paid the estate is to be distributed (provided, of course, the sister left no children) equally between the brother and sisters. The fact that the sister resides in Missouri would not debar her of her right to share in the deceased sister's estate. It was not necessary to have an administrator appointed, unless there was personal property or debts to be paid.

DIVORCE

H. G., Ohio, inquires: "Can a woman in New York State get a divorce from her husband for failure to provide for his wife and four children?"

The laws of New York do not seem to provide for absolute divorce for mere failure to provide, but stipulate that a separation may be granted, and that the husband may be compelled to support the wife and children for cruel and inhuman treatment of the wife and children, or conduct on the part of the husband that may render it unsafe and improper for them to live together, or abandonment of the wife. The inquirer had better write to an attorney living in New York State.

INHERITANCE

M. J., Arkansas, makes this inquiry under the laws of California: "A boy's mother being dead, he inherits her part of her father's estate. But before the estate is settled, the boy dies, leaving no father, mother or full brother or sisters. To whom does the boy's part of the estate fall?"

The laws of California provide "that if deceased persons leave several children or one child, and any such surviving child die under age, not having been married, all the estate that came to the deceased child by inheritance from such deceased persons descends in equal shares to the other children of the same parent." While not positive, I think the boy's part would go to the mother's side of the house.

INHERITANCE

R. A. J., Illinois, asks: "A widow with one child marries a second husband, and there are no children by the second marriage. (1) What part of the wife's property will the husband inherit? (2) What part of her life insurance? (3) Can the wife will all her property to her child?"

(1) The husband is entitled to dower in one third of the real estate. After all debts are paid, where no will is made, the property is distributed to the children and their descendants in equal parts; therefore, it seems that the husband would have no other right than the dower right. (2) As to life insurance, this may be made payable to any person, and the husband would have no interest; and even if made payable to the wife's executors, it would probably go to the child. (3) The wife can will her property the same as the husband, and give it all to her child. This, however, would not bar the husband's right to dower in the real estate.

FORFEITED LANDS

J. W. H., Arkansas, makes this inquiry: "B. owns one hundred and sixty acres of land. He let ten acres and the buildings stand on forfeit to the state for taxes in 1897. He got a loan on one hundred and sixty acres in 1899. A. bought the one hundred and sixty of B. in 1902. A. found ten acres forfeited and redeemed them of the state. Can the loan company hold the ten acres?"

Yes, I would say the loan company could hold the ten acres.

TRESPASSING ANIMALS

J. H., Wisconsin, inquires: "If one farmer has a large flock of sheep, and they go into another farmer's field, and he does not try to keep them out, what can be done about it?"

The inquirer will need to consult the laws of his own state. Most of the states have laws requiring the owner of animals to keep them from trespassing on another's property, and usually provide that trespassing animals may be impounded or taken up, and the owner required to pay a fine for allowing them to go at large.

WIDOW'S RIGHTS

A. E. H., Ohio, inquires: "If a man dies leaving a home encumbered with a mortgage and other debts, and the widow pays two thirds of the debts through her own resources, will the court give her a deed subject to the mortgage, providing the holder of the mortgage is willing?"

The court would have no power to give the widow a deed for the property, unless she would buy it in at administrator's sale. If she could establish the fact that she paid a large amount of the debts for her husband, she might have such debts established as claims against the estate of her husband, and in that way she might get title to the real estate.

TRANSFERRING NOTES, ETC.

B. M. G., Tennessee, asks: (1) "Suppose I hold a note against a person, and wish to sell this note to another, is it necessary for me to sign it or do anything of that sort? (2) I sell a piece of property to a person for a sum to be paid in four equal payments, the first of which is due on December 1st of this year; the other three payments are due yearly. If the purchaser fails to make the first payment December 1st, would anything be in the way of ejecting him?"

(1) If a note is made payable to bearer, it may be transferred without indorsing it—that is, writing the owner's name on the back of it. If it is made payable to order, then it should be indorsed. (2) If the purchaser fails to make payment, the property could be recovered; or an order of the court could be procured, ordering the sale of the premises, and the seller's money in that way given to him.

INHERITANCE

N. U. P., Pennsylvania, inquires with reference to "laws of descent and settlement of estates, rights of the wife, personal property, etc."

By the laws of Pennsylvania, the widow of a person who dies without a will, if such person leaves children, takes one third for life; if there are no children, one half for life. In the distribution of the personal property, the widow, if there are children, takes one third of the property absolutely; if there are no children, one half absolutely. In the administration of the estate, the widow or children are entitled to retain three hundred dollars. By the laws of almost all states, the wife holds her own property in her own right, and may do with it as she chooses. If the husband gave her a note, which note was founded on a valid consideration, even after marriage, such note could be collected; but if the note was given without consideration, it could not be collected after the husband's death. The note given before marriage would presume a consideration, and could be collected. Generally, a married woman cannot sue her husband except for matters pertaining to her own separate estate.

The Family Physician

By R. B. HOUSE, M.D.

ALCOHOL IS BAD

RECENT investigations in this country and Europe have shown again the devitalizing effect of alcohol. It diminishes the resisting-power to disease. Persons addicted to its use, though not by any means in excess, are thereby more liable to contract disease and succumb to its influence than those who never use it. The inference from clinic experience and experimentation is that the use of alcohol as a stimulus in disease is dangerous despite its acceleration of the heart.

HOW TO DRINK WATER

A beginning of kidney-trouble lies in the fact that people, especially women, do not drink enough water. They pour down tumblerfuls of ice-water as an accompaniment to a meal, but that is worse than no water, the chill preventing digestion, and indigestion being an indirect promoter of kidney-disease. A tumblerful of water sipped in the morning immediately on rising, and another at night, are recommended by physicians. Try to drink as little water as possible with meals, but take a glassful half an hour to an hour before eating. This rule persisted in day after day, month after month, will improve the complexion, and likewise the general health. Water drunk with meals should be sipped, as well as taken sparingly.—Good Housekeeping.

A SIMPLE REMEDY FOR DYSPEPSIA

A physician has recently called attention to the use of water not only as a remedial and therapeutic agent, but also as a mechanical agent, in the treatment of certain forms of dyspepsia, especially those forms characterized by a fullness in the left epigastric region, with frequent eructations of sour and acrid matter, accompanied by loss of appetite, insomnia, and a mental condition closely allied to melancholia.

Let the patient drink from one to three pints of water one hour before each meal, and then comfortably seat himself in an easy rocking-chair, and rock backward and forward for half an hour. The rocking will agitate the water in the stomach, wash the walls completely, detaching any mucus that may be adhering, and dilute and mix the contents thoroughly. By this means absorption will be more rapid, and as a consequence the skin, kidneys and bowels will act more freely, eliminating from the blood uric acid and all effete and deleterious matter, while the stimulus of the water will cause the stomach to contract and gastric juice to be secreted in such quantity as to cause digestion to go on uninterruptedly and painlessly.

LEMON-JUICE AS A BACTERICIDE

The daily press is just now much interested in exploiting a statement from Dr. Asa Ferguson, of London, that lemon-juice kills the typhoid bacillus in drinking-water. Although it has long been known that citric acid is a powerful germicide, Doctor Ferguson is apparently the first one to popularize lemonade on such a basis. The wholesome and effective manner in which a teaspoonful of lemon-juice will destroy the pathogenic micro-organisms in a glass of water is certainly astonishing, if not spectacular. It is from both of these points of view that the experiment appeals to the public. The Chicago Board of Health hastens, in its disinterested and public-spirited way, to confirm the conclusion, and the boon is launched accordingly. Something more than this confirmation will be needed by the profession before the adaptability of this wonderful discovery can be demonstrated. If in the end, however, it can be proven that lemon-juice or citric acid can do all that has been promised, Doctor Ferguson will deserve all due credit for practically applying a new principle of typhoid-prevention. In the meantime it may be somewhat comforting for the people to believe that they are protected from infection by the use of this new drink, but it is hardly fair to encourage them to feel any safety against the infected oyster merely because a few drops of lemon-juice are sprinkled over its surface.—Medical Record.

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NOT A PIG

in a poke, but did you ever hear a **Pig Sing?** Well, this **Musical Pig** right from **Paris,** is the latest and greatest wonder out. **More fun** with this cute little porker than anything ever invented. You simply blow him up like the picture here then the **Pig begins to Sing.** After singing awhile he squeals, then collapses, then gives up the ghost with a **last faint grunt** and finally **dies.** Everything about the tragic ending is so laughable, however, that you nearly burst with hilarity, so funny is the ending of poor Piggy. Thousands of these Musical Dying Pigs were sold in Paris this season and they are now all the rage in New York. Don't fail to get one if you want some fun. They are strongly made of a thin rubber substance so you can carry them in your vest pocket and suddenly blow him up and then there is more fun ahead than a box of monkeys. Just get one and try it. Agents can sell them like hot cakes.

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Drunkard

If so, send us your name & address, we will send you a package of our "Secret Cure" free, in a plain package with full directions how to give it secretly in tea, coffee, food, etc. It is odorless & tasteless, & will cure this dreadful habit, quickly & permanently without the patient's knowledge or consent. It is a positive & permanent "Secret Cure" for the Drink Habit & will cost you nothing to try it.
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Special arrangements have just been completed whereby the FARM AND FIRESIDE offers to its readers unusual bargains in yearly subscriptions to popular magazines. The list below is especially adapted for desirable home reading.

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GREAT PRIZE CONTEST
$5,000.00 Cash Prizes
Contest is open to all. See Page 25 of this issue of the Farm and Fireside for full particulars and list of the great cash prizes.

Miscellany

LOVE-LORE

Now, when I see your face, sweetheart, I know
What the rose feels that through the chilling night
Yearns for the sun, despairing, until lo!
The sudden warmth, the glorious, great light!

Now, when I hear your voice, sweetheart, I know
What the rose feels that drought hath almost slain,
That thirsting, droops disconsolate, when lo!
The swift, cold air, the rapture of the rain.

—Theodosia Garrison, in The Delineator.

FACTS ABOUT PINS

PINS cost only a trifle now, while once they were very expensive. In 1900 the people of the United States used sixty-six million gross of common pins, which is equal to nine billion five hundred million pins, or an average of about one hundred and twenty-six pins to every man, woman and child in the country. This is the highest average reached anywhere in the use of pins. Ten years ago we used only about seventy-two pins each. The total number of pins manufactured in the United States during 1900, the census year, was sixty-eight million eight hundred and eighty-nine thousand two hundred and sixty gross. There are forty-three factories in all, with two thousand three hundred and fifty-three employees. The business has grown rapidly during the last twenty years, for although there were forty factories in 1880, they produced only half as much, employed only about half the capital and only one thousand and seventy-seven hands.—American Exporter.

CATALOGUES RECEIVED

J. G. Harrison & Sons, Berlin, Md. Illustrated nursery catalogue.

W. B. Longstreth, Gratiot, Ohio. Seed annual and bargain catalogue.

Peter Henderson & Company, New York. "Everything for the Garden."

John D. Souder, Telford, Pa. Illustrated catalogue of poultry and pigeons.

Wm. Carson & Sons, Middleport, Ohio. Catalogue of vines and small-fruit plants.

Arthur G. Aldridge, Fishers, N. Y. Circular price-list of choice seed-potatoes.

J. M. Philips' Sons, Pittsburg, Pa. Catalogue of garden, farm and flower seeds.

Arthur J. Collins, Moorestown, N. J. Illustrated catalogue of trees, plants and roses.

Plymouth Cream Separator Company, Plymouth, Ohio. Catalogue of dairy apparatus.

Griffith & Turner Co., Baltimore, Md. Illustrated catalogue of farm and garden supplies.

Ford Seed Company, Ravenna, Ohio. Illustrated catalogue of seeds, plants, bulbs and trees.

Geo. A. Sweet Nursery Company, Danville, N. Y. "Trees that Please," and nursery catalogue.

W. Atlee Burpee & Co., Philadelphia, Pa. Burpee's farm annual of vegetable, flower and farm seeds.

The Conard & Jones Co., West Grove, Pa. New Floral Guide. Roses, plants, bulbs and flower-seeds.

M. Crawford Company, Cuyahoga Falls, Ohio. Catalogue of strawberry-plants and gladiolus-bulbs.

The Standard Harrow Company, Utica, N. Y. Illustrated catalogue of harrows and cultivating-implements.

Dennison Manufacturing Company, Boston, Mass. Illustrated catalogue of stationers' and printers' supplies.

Dairy Specialty Company, West Chester, Pa. Descriptive circular of Squeezer combined churn and butter-worker.

German Kali Works, 93 Nassau Street, New York. "Stassfurt Industry"—a booklet for farmers on potash in agriculture.

National Starch Company, New York. "Profit in Feeding." A practical treatise for dairymen, stockmen and poultrymen.

The Aultman & Taylor Machinery Company, Mansfield, Ohio. "Kernels for the Starved Rooster"—a handy book of reference for threshermen and farm engineers.

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$11.95 buys this special high grade, high arm, nickel face plate Edgemere Sewing Machine, complete with all accessories and instruction book, mounted on this elaborately color marquetry decorated and polished antique oak, 5-drawer, drop cabinet. The illustration shows the machine open; closed, the head drops from sight, giving you a handsome desk, stand or table. This machine is covered by our binding guarantee and is superior to sewing machines sold by others at $25.00. The offer we make in our Free Sewing Machine Catalogue will astonish you.

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$12.85 buys this special high grade 5-drawer, drop oak cabinet Burdick Sewing Machine, elaborately carved, engraved, polished and decorated, with high arm head, nickel face plate, nickel trimmings, every high grade feature, sold under our binding 20 years' guarantee as the equal of any machine you can buy elsewhere, regardless of price. Our offer on this machine shown in our free catalogue will surprise you. Get our free sewing machine catalogue before you buy a sewing machine.

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$14.75 buys this handsome extra high arm, nickel face plate, nickel finished, eccentric action Howard Sewing Machine, mounted on this elaborately engraved embossed, shaped, polished and decorated 5-drawer drop oak cabinet. The illustration shows the machine open; closed, the head drops from sight and you have a handsome table, stand or desk. Ball bearing, positive action, extra high grade, covered by our 20 years' guarantee. OUR FREE SEWING MACHINE CATALOGUE makes an offer on this machine such as was never made before.

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$15.20 buys this, the highest grade sewing machine made, our Minnesota. This handsome, bent, quarter sawed, highly polished, elaborately carved, decorated and finished 5-drawer, drop oak cabinet complete with the highest grade ball bearing stand, extra high arm head, a machine we guarantee superior in every way to any other machine made, regardless of name, make or price. It embodies the good points of every sewing machine, with the defects of none, positively the highest grade sewing machine made. We make an offer on this sewing machine in our Free Sewing Machine Catalogue which you cannot afford to miss.

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FOR VERY LARGE, HANDSOME ILLUSTRATIONS OF THESE AND MANY OTHER STANDARD MAKES OF SEWING MACHINES, in all the different styles of woodwork, for a complete description, for the names of people in your own neighborhood who are using our machines (to whom we would refer you), for our liberal three months' free trial proposition, for the most astonishing offer ever heard of, write for our Free Sewing Machine Catalogue. Address,

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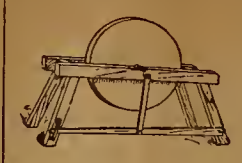
Residents of Springfield, Ohio, are not allowed to enter the contests.



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Below We Print Six Pictures, Each Representing the Name of a Country. The First is China. Can You Name the Others?

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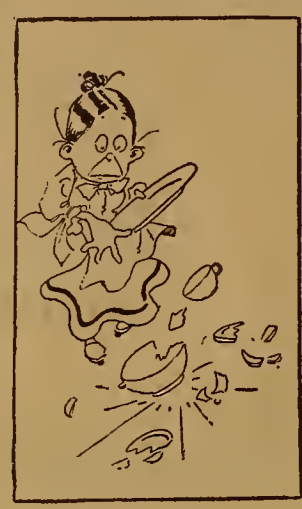

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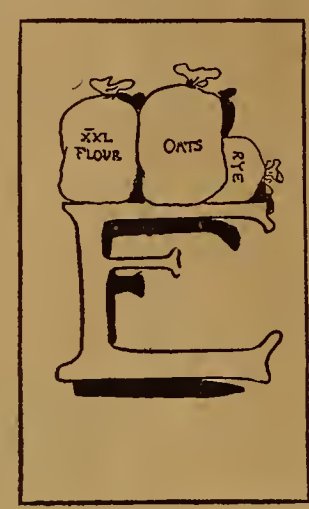

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FIVE.

SIX.

To give equal opportunity to all of our readers, we have divided the country into eleven sections, and a cash prize of one dollar will be given to the person sending the first complete list of answers received from each section not later than March 15th.

Section 1—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island and Connecticut.

Section 2—New York, Pennsylvania and New Jersey.

Section 3—Delaware, District of Columbia, Maryland, Virginia, West Virginia, North Carolina and South Carolina.

Section 4—Georgia, Florida, Alabama, Mississippi, Tennessee and Kentucky.

Section 5—Ohio, Indiana and Illinois.

Section 6—Michigan, Wisconsin and Minnesota.

Section 7—Iowa, Missouri, Arkansas and Louisiana.

Section 8—North Dakota, South Dakota, Nebraska, Kansas, Oklahoma and Indian Territory.

Section 9—Texas, New Mexico, Arizona, Colorado, Wyoming and Montana.

Section 10—California, Oregon, Washington, Idaho, Nevada and Utah.

Section 11—Canada and Newfoundland.

In addition to the above cash prizes, fifty-one copies of a magnificent picture, entitled "Columbus Before the Court of Spain," in fourteen rich colors, are offered as prizes, as follows:

One picture will be given for the first complete list of answers received from each state and territory not later than March 15th. This means a picture for each of the forty-five states, one for each territory, and one for the District of Columbia, also one for Canada.

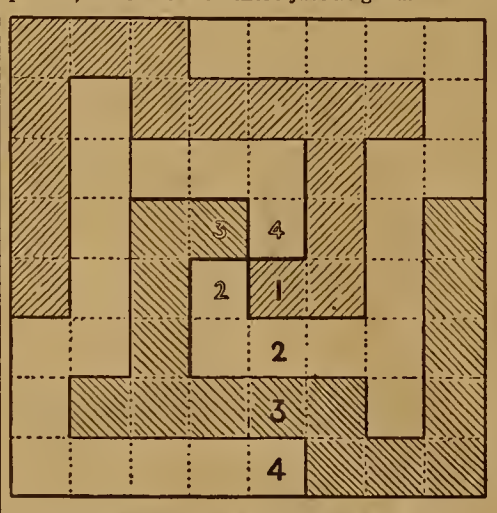
In the states where the cash prizes are awarded, the prize pictures will be given to the persons sending the second complete list of answers, so that one person will not receive two prizes.

Answers must be addressed to the Puzzle Editor, FARM AND FIRESIDE, Springfield, Ohio.

ANSWERS TO PUZZLES OF FEBRUARY 1st ISSUE

THE CHECKER-BOARD PUZZLE

Our illustration shows one way of solving this puzzle; but there are others just as good.



The four cash prizes are awarded as follows:

Two dollars to C. W. Shedd, Columbus, Miss., for the first correct solution received from the states east of the Mississippi River, excepting Ohio.

Two dollars to George W. Dean, Cleveland, Ohio, for the first correct solution received from the state of Ohio.

Two dollars to Sannie Watts, Topeka, Kan., for the first correct solution received from the states between the Mississippi River and the Rocky Mountains.

Two dollars to Nettie B. Harris, Adin, Cal., for the first correct solution received from the states west of the Rocky Mountains.

THE FEBRUARY RIDDLES

The answers to the five riddles are as follows:

1—The same three cats.

2—$377,789,318,629,571,617,095.68.

3—48 and 51.

4—A little dark-e in bed, nothing over him.

5—Cow, hind legs first; horse, front legs first.

The first prize, two dollars, is awarded to John McCormick, Washington, D. C.

The second, third and fourth prizes, one dollar each, are awarded to Wallace Rice, Huntsville, Ala., Bessie Parmelee, Fairfield, Conn., William Miller, New Windsor, Md.

A copy of "The Twentieth Century Handy Cyclopedia Britannica" is awarded to each of the following, as state prizes:

Alabama—Wallace Rice, Huntsville.
Arizona—Jesse S. Hulet, Snowflake.
Arkansas—E. O. Turner, Moorefield.
Canada—Frank N. Bowes, Clavering, Ont.
Connecticut—J. Louis Lowe, New Haven.
Delaware—Katherine O. Huntley, Dover.
District of Columbia—John McCormick, Washington.
Florida—Miss M. Gardner, Paisley.
Georgia—P. H. Hesterly, Villa Rica.
Idaho—Mrs. N. C. Larsen, Silver City.
Illinois—Della Cowley, Brimfield.
Indiana—Edna Nation, Middletown.
Iowa—Laura Belle O'Connelle, Farley.
Kansas—Mildred McComb, Fort Scott.
Kentucky—Bettie Detraz, Spring Grove.
Maryland—Bertha Grove, Broad Run.
Massachusetts—Beatrice Vaughan, Watertown.
Minnesota—Blanch Dickerman, Elgin.
Mississippi—Lottie M. Jones, Richland.
Missouri—Maud Ellen Caldwell, Lee's Summit.
Montana—Mrs. Chris Jensen, Race Track.
Nebraska—Mrs. J. H. Beach, Carroll.
Nevada—Vera Hasch, Reno.
New Hampshire—Arthur L. Sheldon, Westmoreland.
New Jersey—Elmer E. Beams, German Valley.
New York—Helen Brown, Mt. Morris.
North Carolina—Mrs. W. H. Blalock, Kinston.
Ohio—Rubie Rettig, Middletown.
Oklahoma—George Giles, Waukomis.
Oregon—Mrs. Rhoda McEwen, Athena.
Pennsylvania—Merle Blessing, Scranton.
Tennessee—Lora E. Bishop, Powell Station.
Vermont—Franklin S. Ladd, Holland.
Virginia—Mrs. C. E. Chandler, Richmond.
West Virginia—H. Blaine Carden, Lewisburg.
Wisconsin—Ruby Gilbert, Clinton.

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Magic Foot Drafts open the pores of the feet, the largest in the body, and by means of the intricate capillary development of the blood-vessels here, draw out and neutralize by alkaline reaction the acid poison accumulations in the blood, reaching and permanently curing rheumatism in every part of the body. Our free booklet will convince you that Magic Foot Drafts, which at first glance may seem unreasonable, are really the most logical treatment ever discovered for rheumatism. We want to send you a pair on approval, without a cent in advance. If you are satisfied with the benefit received, send us One Dollar. If not, keep your money. Write to Magic Foot Draft Co., 350 Oliver Building, Jackson, Michigan, to-day. Send no money—only your name.

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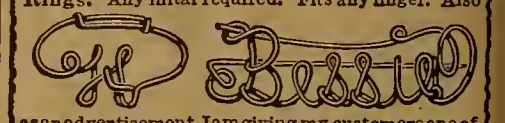

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TO BE GIVEN AWAY

In a Profit-Sharing Contest

The FARM AND FIRESIDE will give $5,000.00 (FIVE THOUSAND DOLLARS), to be distributed to such of its subscribers as may care to engage in an intellectual and profitable contest which will familiarize them with the Immigration of Foreigners into the United States.

? What will be the number of Immigrants to arrive in the United States in the year ending June, 1903, according to the regular report of the United States Government ?

To the two hundred and twenty-five persons making the nearest correct estimates on this there will be distributed the sum of $5,000.00 (Five Thousand Dollars), in the following proportions and under the following conditions:

To the one making the correct or nearest correct estimate of the number of Immigrants arriving in the United States in the Fiscal Year ending June, 1903	$2,500.00
To the second nearest	1,000.00
To the third nearest	500.00
To the fourth nearest	250.00
To the fifth nearest	100.00
To the sixth nearest	50.00
To the next four nearest, $25.00 each	100.00
To the next five nearest, $10.00 each	50.00
To the next ten nearest, $5.00 each	50.00
To the next 200 nearest, $2.00 each	400.00
In all 225 Cash Prizes, aggregating	$5,000.00

THE IMMIGRATION OF OTHER YEARS

For the Fiscal Year ending June of each year

1883 603,322	1888 546,889	1893 502,917	1898 229,299
1884 518,592	1889 444,427	1894 314,467	1899 311,715
1885 395,346	1890 455,302	1895 279,948	1900 448,572
1886 334,203	1891 560,319	1896 343,267	1901 487,918
1887 490,109	1892 623,084	1897 230,832	1902 648,743

Total for last twenty years, 8,769,271. Average each year, 438,463.

$500.00 EXTRA FOR EARLY ESTIMATES

If the correct or nearest correct estimate is received in March, $500.00 will be added to the First Prize, so that the First Prize will be $3,000.00 instead of $2,500.00, if the estimate which secures the first prize is made in March.

First Prize will be $3,000.00

if the estimate which secures it is made in March.

Send your estimate at once, and you may be the fortunate person to secure Three Thousand Dollars without cost.

CONDITIONS

1. Fifty cents entitles you to the FARM AND FIRESIDE for one year and to one estimate. You may subscribe for as many as five years in advance, and each year's subscription will entitle you to one estimate.
2. You can send subscriptions at the rate of fifty cents for each year, with an estimate for each yearly subscription, and direct the estimate to be recorded in your name and the paper sent to a friend.
3. After an estimate has once been received and registered no changes will be permitted.
4. If there is a tie in the estimate of two or more persons for any one of the prizes, the amount thereof will be equally divided among them.
5. After the receipt of the Official Certificate from the proper Government Officials an impartial committee will award the prizes. Its award will be published in the FARM AND FIRESIDE, and the money will be distributed, and this shall be final and binding on all.

You pay nothing for the privilege of estimating. Simply subscribe at the regular price, 50 cents a year, and send your ESTIMATE FREE.

(No one connected with our establishment either directly or indirectly, and no one living in Springfield or Clark County, Ohio, will be permitted to send an estimate, and the entire contest will be conducted in the most fair and impartial manner possible.)

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Date.....

Pub. FARM AND FIRESIDE, Springfield, Ohio:

With this I inclose 50 cents for one year's subscription to FARM AND FIRESIDE, and give below my estimate of the number of immigrants arriving in the United States in the Fiscal Year ending June, 1903. I subscribe to all the conditions of the offer as published.

My estimate is.....

Name.....

Post-office.....

County..... *State*.....

If you send more than one estimate, be sure to write each estimate on a separate piece of paper about the size of this blank, and write your name and address very plain and distinct.

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Wit and Humor

ADAM AND EVE AND THE APPLES

According to the following figures, taken from an exchange, Adam and Eve did not stop at one apple, but kept right on eating until the entire orchard was consumed. It is no wonder that they were turned out and the gates closed:

How many apples did Adam and Eve eat? Some say Eve 8 and Adam 2—a total of 10 only. Now we figure the thing out far differently. Eve 8 and Adam 8 also—total 16.

And yet the above figures are entirely wrong. If Eve 8 and Adam 82, certainly the total would be 90.

Scientific men, however, on the strength of the theory that the antediluvians were a race of giants, reason something like this: Eve 8-1 and Adam 8-2—total 163.

Wrong again. What could be clearer than if Eve 8-1 and Adam 8-1-2, the total was 893?

If Eve 8-1-1st and Adam 8-1-2, would not the total be 1,623?

I believe the following to be a fair solution: Eve 8-1-4 Adam before Adam 8-1-2-4 Eve—total, 8,938.

Still another calculation is as follows: If Eve 8-1-4 Adam, Adam 8-1-2-4-2 oblige Eve—total 82,056. We think this, however, not a sufficient quantity. For though we admit that Eve 8-1-4 Adam, Adam if he 8-0-8-1-2-4-2 keep Eve company—total, 8,082,056.

All wrong. Eve, when she 8-1-8-1-2 many, and probably she felt sorry for it, but her companion, in order to relieve her grief, 8-1-2. Therefore, when Adam 8-1-8-1-4-2-40fy Eve's depressed spirits. Hence both ate 81,896,864 apples.—World's Events.

HE KEPT HIS VOW

From an anecdote told by William Eleroy Curtis in his "Yankees of the East" it may be inferred that the attitude of the small boy toward a fence is the same in Japan as in other countries.

Mr. Gobel, the missionary, built himself a modern house on what is known as "The Bluff," south of Yokohama, and surrounded his grounds with the first fence that was ever built in that part of the world. It was made of bamboo pailings, and the boys of the neighborhood used to annoy the good missionary greatly by rattling sticks against it as they ran along the street.

The British admiral lived just above him, and had a very natty Tommy Atkins for an orderly. He wore a little round cap on the northeast corner of his head, and always carried a little cane of rattan in his hand. One morning, having been sent with a message, he appeared before the admiral with his face bruised and his uniform battered and torn and covered with dust.

"Mercy on us!" exclaimed the admiral, in astonishment at the spectacle. "What has happened to you?"

"Hi beg your parding, sir," replied Tommy, "but as Hi was coming along hup the 'ill a-rubbing me stick against the missionary's fence, sir, 'e come hout in 'is pajamas and said as 'ow 'e 'ad vowed by the grace of God to lick the 'ide off the next man who did that, and 'e done hit, sir."—Youth's Companion.

KNEW HIS BUSINESS

"If I were the mayor," remarked the stranger who had attended a meeting of the city council, "I wouldn't permit the aldermen to waste so much time in useless wrangling over trivial matters."

"The mayor knows what he is about," replied the citizen. "When they're wrangling they're not doing any mischief."—Chicago Tribune.

CHOLLY'S NEW ONE

"Oh, Miss Gwace, I have a bwan-new conundwum—one I made meself. It's jolly good; I'm sure you cawn't guess it. Why is this penny I hold in me hand like a messenger from Jupiter?"

"I fear I must give it up."

"Haw-haw! I knew you would. Because it's one cent, by Jove."—Kansas City Journal.

PUZZLED

"You must limit yourself to breakfast-food,"
So said Doctor Wise;
"You must turn from doughnuts and cut out meat,
Take nothing but oats or pounded wheat,
And push away the pies."
I did as he said for a month at least.
And, suffering Job! how his bills increased.

"You mustn't eat breakfast any more,"
So said Doctor Smart;
"At noon take a little tea and toast,
At dinner a little brown bread at most,
And shun the deadly tart!"
I followed his orders faithfully
Till the firm lopped off my salary.

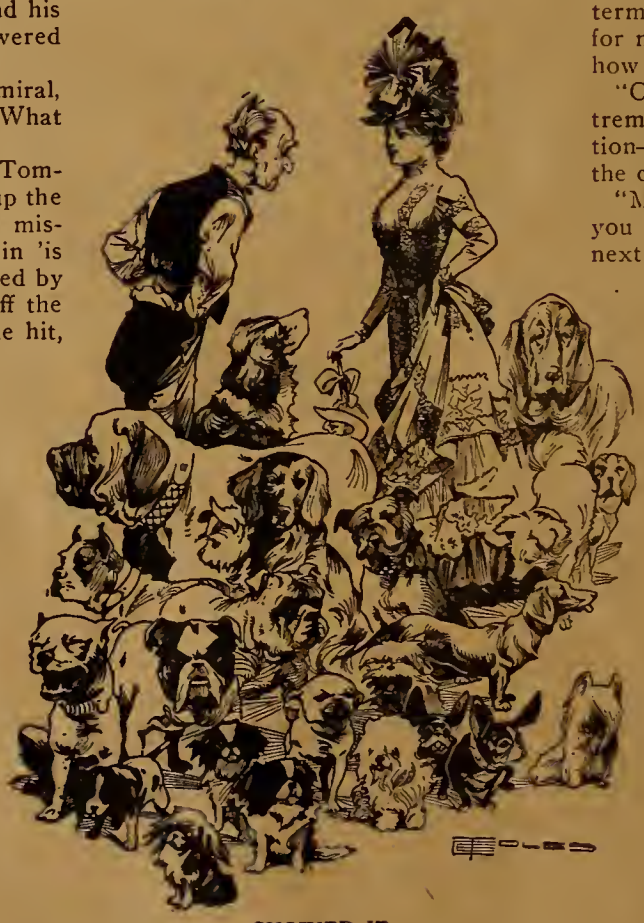
I went to Doctor Sharpe, who said,
"A change is what you need;
Take an ocean trip, or go somewhere
And breathe the bracing mountain air;
It's not a case of feed."
I asked him meekly about his price,
And paid what he asked for his kind advice.

I couldn't go sailing on the sea,
Nor search for mountain air,
So desperately I ate and ate;
Determined to gamely meet my fate
I bucked the bill of fare,
And strange to relate, I didn't die,
But am well again! I wonder why?
—Record-Herald.

LOSS AND GAIN

A woman, on the death of her husband, telegraphed to a distant friend:

"Dear Joseph is dead. Loss fully covered by insurance."—Tid-Bits.



SHOWED IT

Lady—"The dog you sold me last week came very near eating my little boy."

Dealer—"Well, you said you wanted a dog that was fond of children, didn't you?"

SHORT OF SS

"We are thorry to thay," explained the editor of the Skedunk "Weekly News," "that our compothing-room wath entered lath night by thome unknown thcoundrel, who thtole every 'eth' in the ethtablithment and thucceeded in making hith ethcape undetected.

"It hath been impothible, of courthe, to procure a new thupply of etheth in time for thith ithue, and we are thuth compelled to go to preth in a thituation motht embarrathing and dithtrething, but we thee no other courthe to purthue than to make the betht thtagger we can to get along without the mithing letter, and we therefore print the 'Newth' on time, regardleth of the loth we have thuthtained.

"The motive of the mitherable mithcreant ith unknown to uth, but doubtleth wath revenge for thome thuppothed inthult.

"It thhall never be thaid that the petty thpite of any thmall-thouled villain hath dithabled the 'Newth,' and if thith meet the eye of the detethtable rathcal we beg to athure him that he underethtimateth the rethourceth of a firth-clath newthpaper when he thinkth he can cripple it hopelethly by breaking into the alphabet. We take occathion to thay to him, furthermore, that before next Thurthday we thhall have three timeth ath many etheth ath he thtole.

"We have reathon to thuthpect that we know the cowardly thkunk who committed thith act of vandalithm, and if he ith ever theen prowling about thith ethablithment again, by day or by night, nothing will give uth more thatithfaction and pleathure than to thoot hith cowardly hide full of holeth."—Boston Transcript.

HER ONLY OPEN DATE

"Name the day," sighed the fond lover.

He had stolen the opportunity to propose by availing himself of an artistic piano recital at the regular weekly meeting of the Bach-Gounod cult, of which she was a prominent member.

"I wish I could," she whispered; "but my Mondays are taken by the ladies' literary association, my Tuesdays by the sewing and slandering social, my Wednesdays by the higher-thought coterie, my Thursdays by the Bach-Gounods, my Fridays by the Browning researchers, my Saturdays by the charitable visitors, and my Sundays by the heathen-helpers. My evenings are all booked for a long time ahead because of lectures, essay-readings and various intermittent clubs. I wish it was possible for me to find an open date, but you see how it is."

"Couldn't you"—the lover's voice trembled with the rashness of his suggestion—"couldn't you resign from one of the clubs and trust me to take its place?"

"Mercy, no!" she rippled; "but I'll tell you what we might do. Wait until the next leap-year, and I promise that I will marry you on the evening of the twenty-ninth of February."—Judge.

THE OLD BOY

Mrs. C. was horrified to discover that her little seven-year-old daughter was rapidly acquiring the habit of alluding very freely to the devil, and at last she told her determinedly that a repetition of the obnoxious word would bring severe punishment.

The child knew that her mother was in earnest, so she set a seal on her lips. At last she seemed to have forgotten it; but one Sunday Mrs. C., who had been too ill to go to church, asked her if she could tell what the minister had preached about in his sermon.

"Oh, yes'm," she answered; "he preached about Our Lord going up into the mountain and being tempted by—by—by—by the gentleman who keeps hell!"

She didn't intend to run any risks of being punished.—Lippincott's.

Wit and Humor

THE COW, HE WOULDN'T G'WAN

THE COP FELT ITS FEET, AND THEY WERE COLD. THE POOR THING HAD NO UPPER FRONT TEETH

It was late on a Tuesday night. Roundsman Enright had just left the West Thirty-seventh Street station, and was walking along West Fortieth Street near Eighth Avenue, swinging his arms to keep warm, when he spied a huge form lying on the sidewalk. As he approached the body, which was lying directly across the sidewalk, he found a cow, apparently dead. He felt her feet. They were cold.

"Foine thing t' have obshtructin' th' hoighway," mused Enright, as he stood over the prostrate form. "Oi'll have t' push it into th' gutther." So he got his knee against the animal's back, and gave a monstrous shove.

"M-o-o-o-o-o," objected the cow.

"So yez are aloive, are yez?" said Enright. "Well, Oi'll till yez ye can't shlape on th' soidewalk. Move 'long, or Oi'll run yez in. G'wan now."

"M-o-o-o-o-o," answered the cow, without moving.

"Don't yez talk back," said Enright. "Move on, will yez? Yez won't? Well, then Oi'll fan yer feet," and with that the policeman applied the treatment that the lodgers on the park benches often get. That is, he tried to; but the hoofs of the cow were considerably smaller than the No. 10s which are usually the targets for night-sticks, and Enright didn't score a single hit.

"Ye're a shtubborn cushtomer, but Oi'll run yez in yit," threatened the cop, as he went to the corner and found two more policemen. Then all three got a hold on the animal's body. They couldn't budge it an inch. For half an hour they pushed, pulled, shoved and hauled, until perspiration streamed from their foreheads.

"M-o-o-o-o," said the cow.

Then they took a rest. "Tell you what we'll do," said one cop. "I'll get hold of his head, an' you two get hold of his tail, an' we'll pull together. That ought to move him."

"Him!" said the other cop. "It's a pipe you never was on duty in The Bronx. If you don't look out she'll bite. Cows is savage at times."

"Oh, g'wan," said the first cop. "I was in The Bronx fer a year, an' I know what I'm talkin' about. Cows don't have no teeth. Yer got an awful ignorance about cows."

Enright wanted to be sure about the teeth proposition before he tackled the animal, so he made the two cops sit on the cow's head while he lit a match and looked in her mouth. She had no upper front teeth, anyway.

"M-o-o-o," said the cow, beginning to kick. The policemen fled in disorder.

Enright began to lose his desire to lock up the animal. He was debating what to do in the case, and was telling the other cops that it was dangerous to leave a savage beast at large in the street, when a very small boy appeared carrying a lantern.

"I've come to take the cow," he said, meekly.

"Where did it come from, anyway?" asked the roundsman. "Oi've a good moind t' run yez in fer lavin' it here."

"'Twasn't my fault, boss," replied the boy. "We was takin' a herd of 'em from the Western stock-yards at the foot of Fortieth Street to the slaughter-house on the East Side, when this 'un got tired an' wouldn't go no further. So I took the rest over, an' came back for this 'un."

"Well, let's see you get her up," chorused the policemen.

"Surest thing, you know," said the boy. Then he pushed his arm under the cow to the proper place under the prime ribs, and in a jiffy the animal had jumped to her feet.

"So, B-o-s-s," he yelled, soothingly, as he put a halter on her, and then started east leading the cow, which was as peaceful as a lamb.

"How did you do it?" asked the policemen, with admiration in their voices.

"Tickled her. What youse cops don't know about cows'd fill a book," answered the youth, as he and the cow disappeared in the darkness.

"M-o-o-o-o," said the cow.

"Ah, m-o-o-o-o yersilf," said Enright. "If it hadn't been noight-toime Oi'd have sint t' th' Detictive Bureau an' had thim make a picture of yez fer the rogues' gallery. Yez was the worst vagrant Oi iver knew of." And with that he and the other policemen resumed pounding sidewalks.—New York Sun.

HE'LL KNOW NEXT TIME

Professor Walker (taking a stroll)—"If one wishes to learn Nature's secrets he must use his eyes and ears. Let him earnestly and diligently search for knowledge, and he will surely gain it. Now, for instance, I wonder what's the cause of that curious noise in the grass."

"Oh, yes! Now I see! It's bumblebees."

HER PART IN THE PLAY

"I was coming along New Jersey Avenue the other day," said Senator Dubois, quoted by the New York "World," "and I saw two little boys playing horse, as I thought. One boy was in a small cart, and the other boy was drawing him. Trailing along behind the cart came a most disconsolate-looking little girl, a sister of one of the little boys. I stopped the boys, whom I knew, and said to one of them, 'Tommy, what are you playing?'

"'We're playing automobile,' replied Tommy.

"'Well,' I asked, 'why don't you let sister play, too?'

"'She is playing,' said Tommy. 'She's the gasoline smell.'"

NOT YET

Miss Ascum—"Wasn't that Mr. Bonds I saw you walking with last evening?"

Miss Coy—"Yes."

Miss Ascum—"He's a landed freeholder of the county, isn't he?"

Miss Coy—"Well—er—he isn't quite landed yet."—Philadelphia Press.

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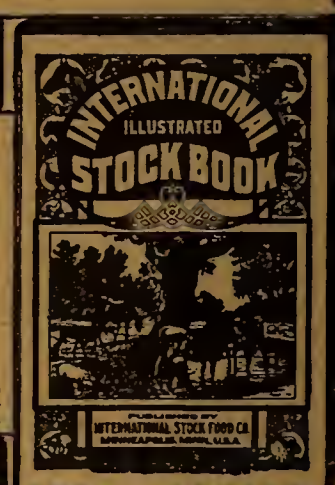

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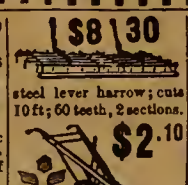

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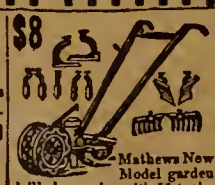

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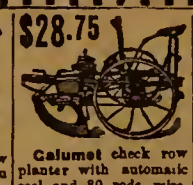

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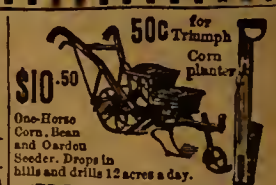

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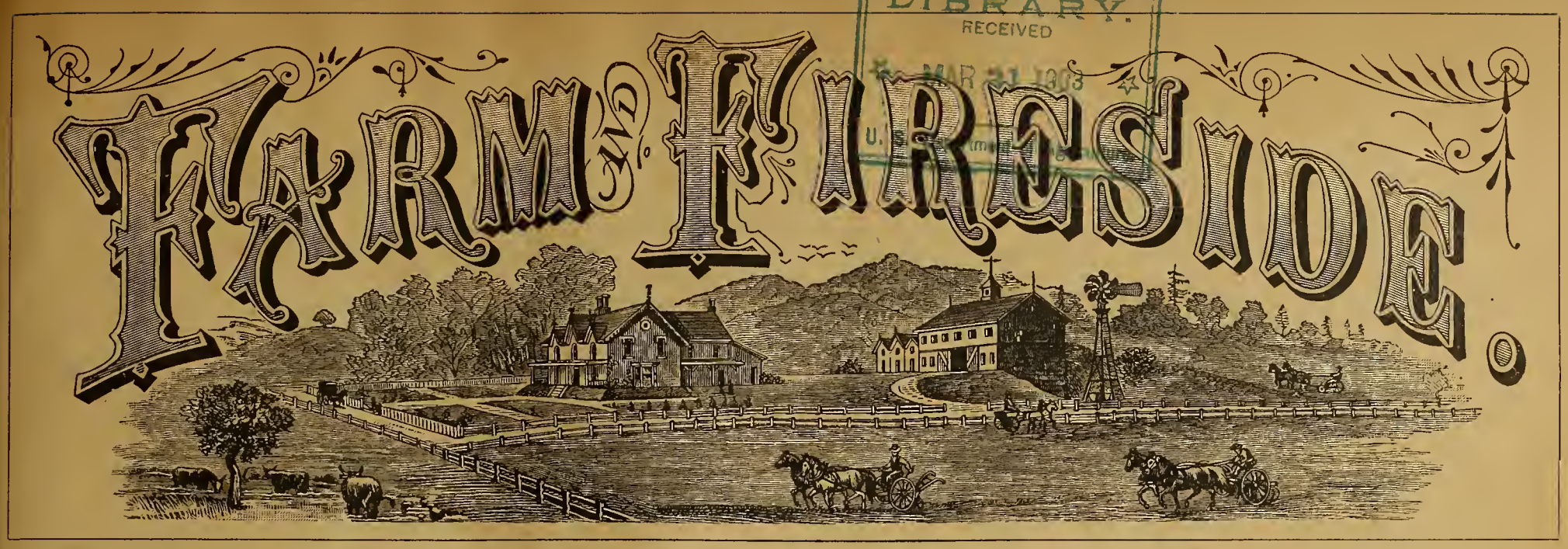

Vol. XXVI. No. 12 EASTERN EDITION MARCH 15, 1903 TERMS { 50 CENTS A YEAR 24 NUMBERS

New Farm-Buildings at the Colorado Agricultural College

During the session of the Colorado legislature of 1901 a special appropriation was made for the construction of a new barn on the farm of the state agricultural college. A legal question as to the constitutionality of a newly enacted revenue law, however, caused a delay in the expenditure of the appropriation. But during the summer of 1902, the legal point involved having been settled, and settled in a manner favorable to the immediate use of the appropriation, work was begun on the new building.

A site was selected just north of the old college barn, leaving a good, broad driveway between the old and the new. It was at first intended to build a brick barn, but it was thought that the additional room to be obtained by building a frame structure would be worth more to the live-stock department than mere brick walls; so the plan was changed.

The new building has just been completed. It is a handsome and commodious structure. The plans were drawn by a student of the class in architecture in the college. The barn has a cellar the full size of its ground plan inclosed by substantial stone walls. Above the basement are two floors.

The building is seventy-five by ninety feet on the ground. The first floor is devoted to horse-stalls, harness-rooms, carriage-rooms, wash-rooms, etc., as the barn for the present is to be given up entirely to the college horses of all classes. There are ten single stalls, five large box-stalls, and two hospital-stalls for the housing of sick or ailing horses. The hospital-stalls are tightly inclosed, so that they may be kept warm, yet arrangements are made for their proper ventilation.

The single stalls and box-stalls are roomy and substantially built. The wooden guards surrounding the box-stalls are surmounted by stout wire screens. The stalls are so constructed as to obtain the best drainage, draining from the sides as well as from the rear. All drainage is quickly carried off into conduits which connect with the sewer.

The room designed for washing carriages has a substantial cement floor, and the floor is so constructed as to carry off surplus water very quickly. This drainage, too, is taken by the college sewer. This room, as well as the entire first floor, is supplied with water from the public water-works system of Fort Collins. This system has an excellent pressure to it, making the washing of carriages an easy matter.

The plan of the first floor was designed with the idea of giving ample room in all parts. The stalls, wash-rooms, harness-rooms, etc., are all roomy, while the walks and passageways are wide and commodious. Very few of the partitions are carried as high as the ceilings, hence there is no impediment to the free admission of light and circulation of air throughout the entire floor. The barn is lighted in all parts at night by a system of incandescent lights furnished by the Fort Collins Electric Company.

The upper floor is devoted to the exclusive storage of hay and feed. In fact, the whole floor is left open save for the interposition of two feed-bins, making an ideal hay-loft. Hay is taken in from the outside through a large opening in the north end of the barn by means of a large grab-fork, and is carried along the entire length of the barn by means of a trolley line.

There are two large feed-bins near the head of the main stairway, one for oats and the other for chopped feed. Feed from these bins is carried automatically through spouts to the floor below, where it is taken in quantities to suit the occasion.

The cellar of the barn is given up exclusively to the disposition of manure and other wastage from the barn. None of the offal, however, is allowed to accumulate in the cellar. A large farm-wagon is kept constantly beneath the manure-trap above, and as soon as it is filled it is hauled out, the contents spread upon portions of the college farm, and then replaced in the cellar to be refilled.

The new barns, as well as the main group of farm-buildings belonging to the college, stand upon an elevated point of ground that is very gravelly in its nature, making the place easily drained, and the elevation of the spot gives a free circulation of air. No better spot could be desired for the best care of live stock.

The surroundings are also very attractive. To the east are the shaded drives and the main college-buildings. To the west is a fine tract of farm-land, backed by the Rocky Mountain range, only four miles distant. The view to the north overlooks the city of Fort Collins, while to the south are the farms of the Harmony district.

The old college barn has been thoroughly renovated and refitted outside and in. It is now devoted to the use of the college herd of cattle, consisting of fine examples of Herefords, shorthorns, Jerseys and Ayrshires.

The college authorities have just finished a new hog-barn. It is situated just west of the old barn, and is built upon the most approved plans. It is being stocked with Poland Chinas and Tamworths.

The old machinery and tool barn has been moved to a site just north of the new barn, and has been enlarged and thoroughly renovated. H. A. Crafts.

GENERAL VIEW OF THE BARNS AT THE COLORADO AGRICULTURAL COLLEGE

SMALLER FARMS, BETTER RESULTS

There are indications that the day of the large farm is passing. This in many respects is a most encouraging prospect. The man who is "land poor" never does quite so well as if he had what he could handle wisely and to the best advantage. We might better have a hundred acres well tilled than a thousand of which half is running to waste and calling for annual outlays for taxes and other outgoes. In the West large farms have been, and still are, the rule; but even there the tendency is toward a division of land among more men. This must be more and more so as the West fills up. The East never has been noted for great farms. The man who has two hundred or three hundred acres is considered a large landowner. More by far own eighty or one hundred acres, with a tendency still further to reduce acreage.

This means better farming. We frequently find farms which really produce more than when the country was new. Intensive culture is making them better with every passing year. The smaller the farm—within proper bounds, of course—the more time and labor the farmer can put on his crops, with the inevitable consequence that better crops will be harvested. Every acre, too, is being tilled. The time for idle land is rapidly passing. We must get all we can out of every foot of land we possess. That means success. E. L. Vincent.

The possibilities of Cuba for sustaining a dense population are much underestimated. Japan, with a less proportionate acreage of fertile soil, supports a population of two hundred and fifty-five people to the square mile, exceeding that of China, which has only two hundred and thirty-six. *

An Opportunity to Get $3,000.00 Without Cost. See Page 25.

FARM AND FIRESIDE

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Always name your post-office.

Mr. Greiner Says:

TREE-PROTECTORS.—Veneer tree-protectors are not in favor with Eastern fruit-growers. In some instances the veneer has been found a most serviceable hiding-place and protection for insects. The most popular, most satisfactory and cheapest method of protecting young trees against mice, etc., during the winter is the old device of putting a mound of earth up against and around the body of the tree.

PINE SHAVINGS IN MANURE.—A Connecticut reader is told by neighbors that manure from animals bedded with pine shavings is "no good." I have used shavings for bedding more or less for many years. It is true that our shavings here come from mixed woods, and probably are only in part from pine, but we never ask questions in this respect. The shavings all go into the manure, are thrown out, partially rotted by fermentation, then applied to the soil. No good? Come and see. Where the manure is put we get the crops.

WHY A FILLER?—I have often asked, "Why talk about a filler? Why should we use a filler, or why does anybody, except it be to deceive by bulk?" Nobody has ever been able to give any good reason for adding bulk to a chemical fertilizer. I never recommend the use of fillers, and when I buy plant-food materials, outside of stock-yard manures, I try to get them in the most concentrated forms in order to save freights and labor in hauling. A pound of phosphoric acid in its original shape of dissolved South Carolina rock is just as effective when evenly strewn over five square rods of land (and in that shape it weighs about seven pounds) as when we first mix it with another two or three pounds of land-plaster and then apply the nine or ten pounds to five square rods. I buy South Carolina rock (dissolved or superphosphate) for my phosphoric acid, nitrate of soda, dried blood and possibly cotton-seed meal for my nitrogen, and muriate of potash for my potash, and nothing much else. If I were growing tobacco, I might, or would, buy my potash in the sulphate form. Here we have our plant-foods in most concentrated forms, and save freight and expense in handling. What more do we want? Any one who prefers to buy his plant-foods ready mixed will do well to pick for actual plant-food rather than for bulk. The high-grade manure is most always the cheapest in the end.

MIXING FERTILIZERS.—Fertilizer-men are in the habit of setting up the difficulties of the proper mixing of chemicals as a scarecrow for farmers. Doctor Jordan of the Geneva station, while admitting that the goods of our respectable fertilizer firms are admirably prepared and in as good shape as any one could hope to get them, yet states that he has examined many samples of home-mixed fertilizers which were practically as good, and that there is no difficulty or obstacle in the way of home mixing. I would like Doctor Jordan, however, and likewise all fertilizer-men, to tell me (they have thus far failed to explain it) why it is necessary to mix these ingredients. I never mix my plant-foods, but prefer to apply each of them separately. If the lack of phosphoric acid represents your chief soil-deficiency, buy dissolved South Carolina rock, and apply from two hundred to five hundred, or even more, pounds to the acre, either by means of the fertilizer-attachment to the common grain-drill, or broadcast. A four-hundred-pound application will cost you less than three dollars, and in many cases in grain and clover farming will give you better results than three dollars expended for the mixed fertilizers of our fertilizer-men. If the dissolved rock, which is fine and dusty, has to be applied by hand, broadcast, I slightly moisten it by emptying some on the floor of the barn or in a large, tight box, and sprinkling or spraying water over it, then adding more rock, spraying again, and so forth, and finally shoveling the whole mass over repeatedly until it can be handled without seeing the dust fly. If potash is also needed, muriate of potash can be sown broadcast by hand in the same way as wheat or common salt can be sown, and that is also the case with nitrate of soda, should nitrogen be needed. Again I ask, "Why take the trouble to mix all these things? What advantage is there in mixing?" Experts, please explain.

HOME-MIXED FERTILIZERS.—I have received quite a number of inquiries in regard to fertilizers, especially about that home-mixed "2-8-2" brand, which with freights and the labor of mixing added will cost not to exceed sixteen dollars a ton. These queries only emphasize what I said in the February 15th issue about the need of better education for the common farmer, and about the part that our common rural-district schools should take in it. Without that fundamental knowledge upon which good farming rests, the farmer must remain a helpless victim and at the mercy of scheming fertilizer agents and mixers, or be dependent upon somebody's good advice in every special case. Fertilizer-dealers are just as respectable and honest, perhaps, as other tradespeople. None of them, however, are in the business for fun, and if they have to take chances, give long credits, and take the risk of losing a bill here and a bill there, the rest who do pay must pay not only the dealers' profits, but the dealers' losses as well. Doctor Jordan states that low-grade mixed fertilizers—such as the "2-8-2" brand—have been sold to farmers during the past year at an advance of fifty-five per cent over cost. Now, what will we have to buy to get a fertilizer of that composition? It calls for forty pounds of nitrogen, one hundred and sixty pounds of phosphoric acid and forty pounds of potash. In three hundred pounds of nitrate of soda you get about forty-five pounds of nitrogen; in twelve hundred pounds of dissolved South Carolina rock, about one hundred and sixty-eight pounds of phosphoric acid, and in eighty pounds of muriate of potash, forty pounds of potash. This combination, however, would make only fifteen hundred and eighty pounds, and to make out the ton you would have to add a filler, such as land-plaster, or even dried muck (although the latter would slightly increase the amount of nitrogen). Or you might substitute sifted wood-ashes, say six hundred pounds, for the larger portion of the muriate of potash, also using one hundred pounds or so less of acid phosphate. In some such way, however, you can compound the "2-8-2" fertilizer at a cost of about as follows, freight included:

1,200 pounds of dissolved rock at $14 a ton....	$8.40
300 pounds of nitrate of soda at $45 a ton.....	6.75
80 pounds of muriate of potash at $45 a ton..	1.80
Total.....	$16.95

The smooth-tongued agent will charge you from twenty-two to twenty-four dollars a ton for the same amount of plant-foods, and possibly they may not all be in as good shape as when you mix them yourself.

Mr. Grundy Says:

TAXPAYERS.—A few days ago I dropped into the tax-collector's office, and paid my taxes. In the room were five men on the same errand, and all were as mad as freshly stirred hornets. They denounced the rate of taxation as outrageous robbery, an imposition, a fraud, a swindle and several other things. In a few weeks from now they will fall into line, and vote as their party boss dictates, putting his man into office without a thought as to his honesty or his ability to fill the place. "He's our man," and that is all that is necessary; that is all they want to know about him. I once saw a man put in three days framing a little culvert, for which he was paid two dollars and fifty cents a day. He was a "good party-worker," and the boss had requested the officer in charge of the matter to give him the job. Any live man could easily have done the job in half a day. Other jobs were properly distributed among the faithful, and were worked for all that could be gotten out of them, and the public paid the bill. We hear and read a great deal about national, state and county politics being somewhat off color, but they are as clean as freshly fallen snow compared with small local politics manipulated by petty bosses. Parties are all right. I think they are a good thing, except when wholly controlled and manipulated by two or three unscrupulous, dishonest bosses who use them to advance their own interests and line their own pockets at the expense of the taxpayer. If the taxpayer would look after his own interests as assiduously as the boss looks after his, he would have less cause to wail about "tax robbery." It is about time to be thinking these things over. The spring elections are near at hand.

COAL PRICES.—In a chat with a coal-miner who is in close touch with union centers I was informed that the day of cheap coal is very probably past. He said that the miners were determined to have a "fair price" for their labor hereafter, and that the operators would probably add the increase in wages to the price the consumer would have to pay for the coal. I think there is very little "probability" about it. It is an assured fact. The consumer must pay any cost that is added to the production of coal. We may protest as much as we please, but we will have to pay or go without coal. This brings me to my favorite theme, tree-planting. If one has a wood-lot from which he can supply himself with a great part of the fuel he needs, he is practically independent of both miner and operator. One can take the poorer grade of fire-wood that we get from the rapidly growing trees, and by adding a little coal to it make a fire in cook-stove or heater that is quite as satisfactory as one made of coal alone. In burning these soft woods, like willow, poplar, soft maple, etc., we will get better satisfaction and a steadier fire by cutting them into chunks as large as can conveniently be placed in the stove or heater. There has been a great deal of these soft woods used as fuel during the past winter, and when properly managed they have given good satisfaction and made quite a saving in the coal bill. I well remember the days when wheat was bound by hand; how harvest-hands began to think they were about the whole thing, and demanded this and that, and struck for higher wages and certain quantities of whisky, and "cut up Jack" generally. Thousands of farmers quit growing wheat because of the troubles with harvest-hands. But in due time the self-binder came in, and the harvest-hand lost his job and went out, and with him went conditions that had become almost intolerable. Something of the same sort may come in soon and cut short the antics of the coal people. But nevertheless I still advise the planting of forest-trees for fuel, as well as for fence and building purposes. I am well satisfied that the man who does plant will have no kick coming when his trees have grown to useful size.

SEED CATALOGUES.—Most seedsmen, I notice, are sending their catalogues out a little later this season than usual. I think that is a good idea. The catalogue that comes to us almost before the holidays are over is very apt to be mislaid or given to the children to play with, and when wanted cannot be found. The one that comes a little while before we begin to think strongly of early vegetables is apt to be the one that is at hand when we desire to make out our order.

I see that seedsmen are still inclined to magnify "new" things. They call them "novelties," and I think the name fits most of them exactly, for one is very likely to have a novel experience if he takes it into his head to discard all the old and well-tried sorts for these. Some of the new things prove to be very good—better in some respects than the older sorts—and it pays to try a few of them every year. One is not out much if they prove to be dreams instead of facts, while if we get one good thing in two or three years we are amply repaid.

In selecting a seedsman to send my order to, I have always made it a point to go a little shy of the man or firm that has the most wonderful things, novelties and curiositics on the face of the earth, and devotes two thirds of his catalogue to describing them. Comic pictures are all right in the proper place, but not in a seed catalogue. A picture of six horses and a dozen men hauling a single head of cabbage out of a field, or three or four yoke of oxen pulling on a pumpkin the size of a house, are apt to have an effect opposite to that intended, especially when the text intimates that the seeds offered will produce something nearly approaching that size. Then, I never could see why seeds and poultry and eggs should be offered in the same catalogue. Seeds, fertilizers, farm and garden machinery and all the appliances used by gardeners, florists and fruit-growers seem all right together, but when we find live stock added we are apt to think of "side-lines."

In making up the list of seeds this year, add a good supply of flower-seed. Somebody has said that flowers are God's smiles, and I think the expression is very nearly right. If you cannot have flowers on the lawn because the fowls scratch them up, have them in the garden. Some of the most beautiful flowers we have are as hardy as turnips, and can be grown quite as easily. A hard-working woman who was asked why she always had a strip of ground in her garden devoted to flowers, said, "Oh, I grow them just to rest my eyes." She made and kept up the garden herself, because her husband was too busy farming to think of such trifles, and she grew vegetables that made one hungry to look at, yet she always had time to attend to and pet her old favorite flowers. I once asked a man why he chewed tobacco—what good it did him. "Why," said he, "it makes me feel gritty and able. Then, you know, I'm always loaded. When a peddler or anybody I want to get rid of comes and bores me, I spit and splutter about as I talk, and he soon gets out." I find various people have various reasons for the things that they do.

All Over the Farm

FARM THEORY AND PRACTICE

PEATY SOILS.—In our Central states we have a large area of land whose soil is largely decayed vegetation. When drainage is given this land the owner expects good returns from his cropping, and not infrequently is he disappointed. It is not easy to assign the correct cause of failure, but some experiments indicate what the matter may be. Too often the drainage is not sufficiently deep and thorough. The land is naturally low, and outlets may be difficult. But one thing is sure: The organisms that work in the soil, changing the fertility into available form for plants, cannot live in ground that is sealed up by water, and if the land is wanted for tillage the level of the dead water must be made low enough to give room for the growth of plant-roots. Such soils are usually acid, and need the presence of air to assist in sweetening them. Only thorough drainage will let the air pass down, so that plant-food may be made available and harmful acids may be destroyed.

But good drainage does not always make the soil productive. When corn is planted, the crop grows nicely for a time and then stops, and the yield of grain is very light or nothing at all. In such a case some one or more mineral elements should be applied. Wood-ashes often give good results. They contain lime, potash and a small amount of phosphoric acid. It is not easy to tell whether one or all of these elements produced the effect. It is always possible that lime was all that was needed. It helps to destroy acid, and it helps to make inert fertility available. But some experiments with kainite indicate that potash is lacking in such soils or that the salt in the kainite had good effect. We know that such land has lots of nitrogen in it, and it is always probable that the supply of phosphoric acid is small.

With these probabilities before us, the owner of such land, if he is trying to crop it with corn and is getting very little grain, should begin an experiment with mineral fertilizers, to learn just what is lacking. One plot should be treated with lime, another with potash, another with acid phosphate, and another with all three. The materials can be bought of any fertilizer-dealer, and the experiment on a few acres of land would not cost much money. Stable manure sometimes gives good results, and this may appear puzzling when we know that it is rich in nitrogen and weak in minerals, while these bogs show a like composition when analyzed; but it is probable that the manure provides a chance for soil-organisms to thrive for a time, providing plant-food out of the inert, sour soil. The results must be temporary unless the water is drained away. Lime and mineral fertilizers should effect a surer and more permanent improvement.

SEEDING FOR PASTURE.—Some of this low land is so loose in texture after draining that it is difficult to get a good sod started. If rye and timothy were seeded in the fall, and cattle were put on it whenever dry enough in the spring and summer, keeping the rye grazed down, the tramping would be beneficial to the grass. The rye should be clipped with a mower when it comes into head, being left as a mulch for the ground. I know of no surer way of establishing a sod on very loose ground. Of course, the mineral fertilizers should be used when needed, to supply the grass with the food it requires at times.

RIVER-BOTTOM LAND.—In some of the most noted valleys devoted to the production of corn the fertility of the land has been maintained by deposits of silt made by high water. Every year, or once in several years, a flood has brought new soil—the finest and most soluble of higher land further up-stream. For half a century or longer this new soil was so full of leaf-mold and other organic material that the land remained as fertile as land could be, although a crop of corn was removed every year. In recent years there is apparent change in the nature of these deposits. The material taken up by the water on the higher land and left as sediment on these low-lying corn-fields comes from worn hillsides, and often is an infertile clay, and it covers a soil which is better than itself, leaving the owner worse off than he was before it came. This change in the nature of these alluvial deposits is becoming a serious matter in many a valley noted for immense productiveness.

Where the land is high enough to escape the flood two years out of three, clover is coming into use. Its effect upon such land is wonderful. There is risk in seeding such land to wheat and clover, but when a stand can be secured the succeeding corn crops are greatly benefited. I believe there should be more experiment on this low land with clover seeded at the last working of the corn. Only the value of the seed is risked, and if a catch is gotten the risk from killing by flood is extended over one year only. This land is most profitable in corn, the wheat is not sure, and there is less loss of time in corn-production if the clover-sod can be gotten in one year after a corn crop.

THE PRICE OF LAND.—The prosperity of farmers in sections devoted to corn and hogs is indicated by the tendency of land values. The farms are in demand, and prices are going to a high point. The present profits seem to justify the prices asked. There is one impression, however, that does not have, in my opinion, proper justification, and that is that the true corn-producing area is too limited in extent to permit any return in the future to low prices. We are told that the day of very cheap corn is wholly in the past. It may be, but we always think this way in "boom" times. They are saying the same thing about steel. We must remember that the possibilities in corn-production cannot be realized in imagination. Drainage will do much to increase the crop. When corn pays better than other crops, its area will increase at their expense. We can easily have an excess of corn again. It is best to remain conservative in our thinking and planning, making the best of the present, but not throwing caution to the winds. DAVID.

INDOOR AND OUTDOOR WHITEWASH

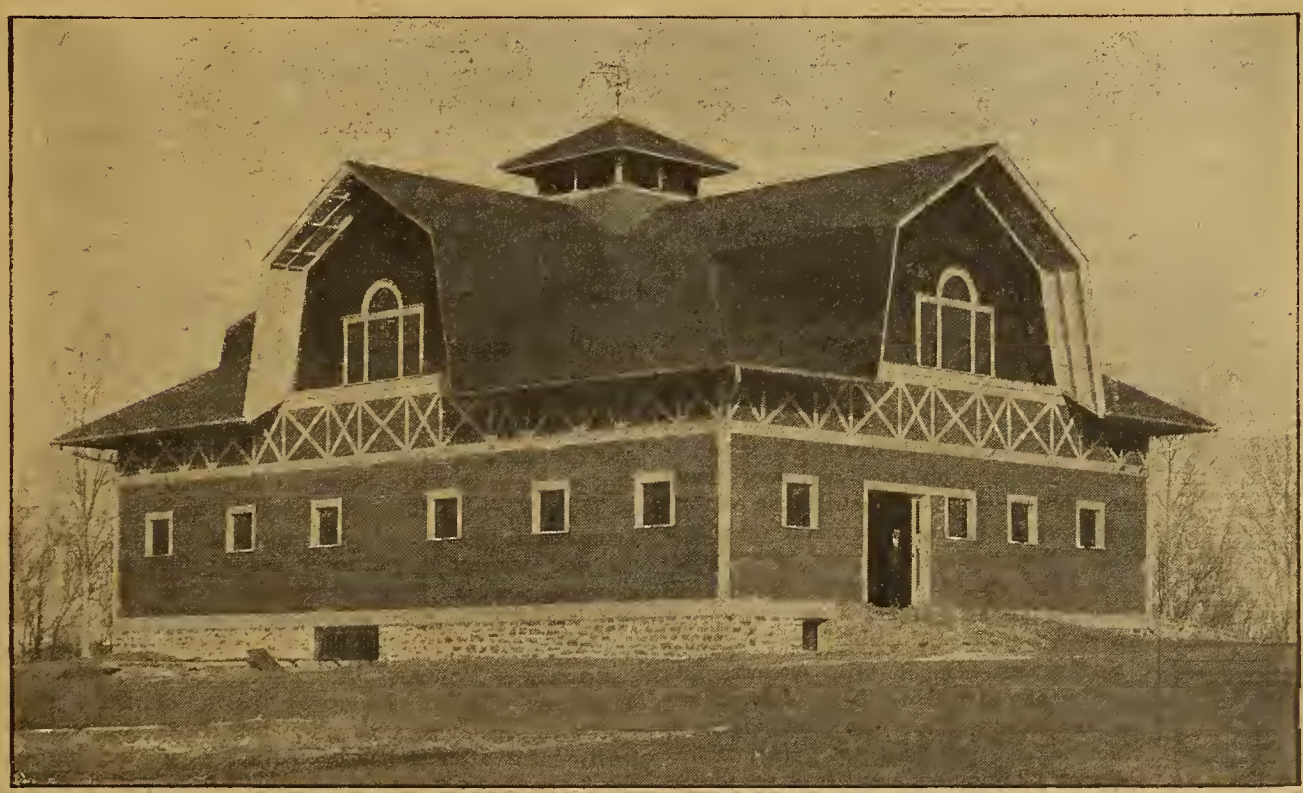
Nearly every one knows how to make whitewash by putting a lump of fresh lime into a porcelain or iron kettle, adding enough boiling water to slake it, and keeping the vessel closely covered during the process, which requires about thirty minutes. Then by thinning with cold water or buttermilk, with a handful of salt thrown in, and a moment of stirring, you have first-rate whitewash for indoor use. For cellars, poultry-houses and fruit-trees a little dissolved copperas or carbolic acid makes it disinfecting and germ-destroying.

However, a whitewash to be used on outbuildings and fences which is proof against the elements, and which will stick with the tenacity of Aunt Jemima's plaster, is another proposition. That whitewash will last longer on new lumber than on old has been proven.

I offer two recipes for general use which are the cheapest and most reliable of any I have ever used, and are well worth trying.

No. 1—To three quarts of air-slaked lime add enough lukewarm water to make a thick paste. Stir into this five cents' worth of coach-varnish. Thin with warm water or buttermilk, and keep well stirred while applying.

No. 2—To three quarts of air-slaked lime and one quart of Portland cement add enough warm water to make a paste. Thin with cold water or buttermilk, adding a handful of salt. Keep well stirred. H. P. H.



NEW BARN AT THE COLORADO AGRICULTURAL COLLEGE

FOR THE LAND'S SAKE

We may have fertile land; we may have it filled with humus, and supply barn-yard or commercial manures in such proportions and quantities as the crop may need, but the tickling act must be performed on the land to get it to laughing with a harvest. We must have the plow and the other tools that follow. There are so many good plows that we may assume that they are all good. Some are better than others for my land, which is generally quite stony, and the others you would find better for your land. Of course, in my land a subsoil-plow would be out of the question; and the truth is, the subsoil-plow is much more a theory than a tool of usefulness.

I have a wise friend who uses a riding, reversible plow. His fields are small, and he plows back and forth, leaving headlands or turning-lands at each end to be plowed later. He says the riding appears to agree with him constitutionally and yet is no extra burden for the horses.

The matter of deep plowing on all lands is altogether a theory, and I doubt much if one need bother himself much about plowing any deeper than the humus extends down on any land. Moreover, all the deep plowing in the world will not increase the depth of one's soil if good quantities of vegetable matter are not added to the plowing. I know much of the teaching has been "deepen your soil by a little deeper plowing each time," but it isn't the first wrong teaching that has been persisted in.

While yet moist from the plowshare I start the roller or the drag, then as soon as possible the harrow. If a heavy sod has been plowed down I use the disk-harrow to cut the sods without tearing them up. While I do not insist upon deep plowing, I want deep harrowing, and plenty of it. If the sod is not very stubborn I like to use the spring-tooth harrow, alternating with the drag or roller.

Now, with a manured clover-sod to plow down, and plenty of tillage as I have outlined, a fair dressing of manure applied after plowing and harrowed in, three hundred pounds of acidulated rock and muriate of potash drilled in as part of the tillage, I consider my land ready for the seed-corn that I have tested and know will produce after its kind.

Not long after the corn is planted I start the weeder, and use it again before the corn is up, and again as it is coming up. Then I let the corn get two inches high before the weeder is used again, then use it once a week or oftener until the corn is one and one half feet high. When it is about six inches high I use the double-worker once, with the teeth going in deeply. After the corn is too high for the weeder, one passage of a light one-horse harrow, expanded to cover between two rows, does satisfactory work. Before the last working of this kind in July, the crimson clover is sown, and if the crop does not shell out a hundred bushels of corn to the acre I have missed my mark.

W. F. MCSPARRAN.

A THING WE FORGET

Often when we work to raise a good crop of corn or other feed-stuff, or when we pay out a round sum for grains that some one else has produced, we say, "Well, that is the last of it. We will never see that money again. The time and labor spent in getting that crop are gone forever, and what have we left to show for them? A few dollars come back in the form of milk or butter, but that is all."

But is it all? When we feed this corn or meal we forget that but a small part of the good is represented in the milk or the butter or the cheese. Simply because we cannot measure in dollars and cents the value of the part which goes back upon our farms in the form of first-class fertilizer, we think our time, labor and money have been largely wasted. If we could understand how much depends on the way we keep our farms up, we might place a higher value on the crops we grow or the grain we buy for use in the dairy. The fact is, a good share of our farm-labor is done not for to-day, but for the day that is coming. You and I may not live to see the result of all we do; few ever do; but some one will if we are faithful in our work. It pays us, however, if we live only a few years, to feed our stock well, and so feed our farms well, too. E. L. VINCENT.

Prof. Henry S. Gannett of the United States Geological Survey favors the policy of the Department of the Interior, which is that of greatly increasing the forest-reserves at and near the summits of the Rocky Mountains as well as along the Appalachian range near the Altantic coast.

A foreign expert in forestry says, "A forester should have some knowledge of geology and soils, some of meteorology and climate, and some of biology, to grapple with the ever-changing hosts of enemies, animal and vegetable, ready to destroy the crop which one generation sows, but which only succeeding generations can gather in." *

Announcement

We have obtained the Court's decree against two additional manufacturers who have been infringing our patent. The rule of law is: "The maker, seller or user of an infringing device are all liable in damages to the owner of the patent infringed." The Janesville Machine Co. and the Keystone Farm Machine Co. are the only firms licensed to use a *flat tooth* covered by our patent, and we finally warn sellers and users of all other makes. So admirably have the 60,000 "Hallock" Weeders done the work for which they were designed, that one maker after another sought to copy it. However, by the various Courts' decisions, these makers are compelled to abandon the manufacture of a Weeder having flat teeth, and they are now experimenting with other shapes; but it is the flat tooth that made the "Hallock" Weeder famous, and in view of the manner in which our patent has been sustained, it is dangerous to use an infringing tooth. Write for descriptive circulars and prices.

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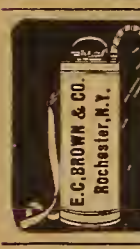

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Gardening

By T. GREINER

PARAGRENE.—A reader in Hollidaysburg, Pa., asks about "Paragrene," which is recommended to him as the best insecticide for spraying fruit-trees. I have used it, and consider it as effective as Paris green, while it remains far longer in suspension in water or Bordeaux mixture. As it is not a standard drug, we may not have the assurance that it will always be of uniform quality or up to its present standard.

RED CEDAR.—H. A. B., of Brooklyn, Ohio, inquires about growing red cedar. The only attempts that I have ever made in growing evergreen-tree seedlings have been with Norway spruce for Christmas trees, and I intend to repeat the trial, giving the young seedlings some shade for protection the first summer. The red cedar is not a true cedar, but a juniper, and is also called "savin." While the seeds of Norway spruce sprout readily the first season, those of the red cedar will usually lie dormant in the ground for a year. Our friend will find it a good plan to soak the seed for a few days in weak lye, or stratify them with moist ashes, so as to soften the pulp. The tree is hardy, and it can be grown successfully in almost any kind of soil.

GROWING PICKLES.—A lady in North Carolina inquires about growing pickles for profit. She is a widow with twelve living children, and wants to raise some crop in the care of which she can utilize their help and make some money. The only cloud on this scheme that I can see is the idea of shipping the pickles. This is all right if the buyer is secured in advance. I would first of all look to the market for such a crop, and I would prefer a local or near one. The chief part of the labor in pickle-growing is the gathering, and children, if careful and not too small, will do first-rate, the work being light. Early garden-peas are another crop which can often be grown with a profit if there are children to look after the picking and selling. This year, however, seed is so high-priced that it will take most of the profits in any case.

ONION-GROWING.—There seems no end to the questions about onion-growing, which proves this vegetable to take a front rank among vegetable crops for money. If I were "a widow with twelve living children" I would also pick out the Spanish onion (Gibraltar and Prizetaker) for a money crop. The seed should be sown early in hotbed or under glass, directly in the bed or in flats, and later transplanted to open ground. This is an operation which very young children can attend to if properly instructed and superintended. Youngsters can also be trusted to do the weeding and cultivating, and finally the harvesting and selling of the crop. Prepare the soil well. Any good, rich, strong loam will do. Mark out rows fourteen inches apart, and set the seedlings, after tops and roots have been shortened back, about three or four inches apart in the rows and one inch deep. These onions, year after year, have been one of my most satisfactory and best-paying garden crops.

SOY-BEANS.—D. K. B., Arthur, Ill., says he has grown soy-beans for a number of years. With him they ripen in ninety days from planting. He fattened a bunch of hogs on a patch of soy-beans last fall, and never had hogs do better. His chickens also like these beans. The sample which he sends me is undoubtedly the variety known as Ito San, which I consider the best of the soys for general purposes of all the standard sorts I have tried. The plant grows from two and one half to three feet tall, sometimes even taller on rich ground. Rats will not touch common white beans when left in open barrels or boxes, but I have to keep the barrels in which soy-beans are stored tightly covered, or else the rats will feed on them right along. Recently I gave a quart of soy-beans to one cow twice a day for a number of weeks, and the yield of milk gradually increased perceptibly. The beans were mixed with the cut feed, bran, etc., and there was never an undigested bean found in the droppings. It shows that in feeding soy-beans to cows, and probably to other animals as well, we may well dispense with the previous grinding. Whole beans will do just as well, and are eaten as readily.

LEAF AND FRUIT.—A lady reader in Kansas tells of instances of tomato-vines making a tremendous vine-growth while yet giving scarcely any ripe fruit, and others of potato-plants making plenty of top-growth yet producing but few and small potatoes. I have observed similar instances now and then, although the rule is that it takes a large amount of foliage to support a heavy yield of tomatoes or potatoes. Good farmers and gardeners do not any more put the blame on the moon or the sign of the zodiac. In fact, there is very little mystery about these things. The fault is in earthly rather than in heavenly or lunar conditions. An excess of nitrogenous elements or a comparative lack of mineral elements in the soil may give an excess of leaf-growth at the expense of fruit or tuber. Some tomato varieties are naturally inclined to make strong leaf-growth. These we must plant on soil that is not excessively provided with nitrogenous or organic matter, and plant them further apart besides. The old Peachblow potato was a remarkably strong grower. In an orchard that was much used as a garden spot, and filled with nitrogenous matter, I once grew Peachblows the tops of which covered the ground with an impenetrable mass two or three feet deep, but yielded no tubers, while a patch of Peerless close by, in unshaded and only fairly good ground, and having a somewhat smaller amount of foliage, yielded over a bushel of mammoth tubers from every eight hills. You can almost always find a reason for such "strange" behavior of these crops. I aim for plenty of sound foliage, although not for an excess of it.

Fruit-Growing

By S. B. GREEN

YIELD OF STRAWBERRIES.—H. J. S., Johnstown, Pa. With good ordinary cultivation most growers figure that they can raise about one hundred and fifty bushels of strawberries to the acre. Sometimes twice and three times as much as this is raised to the acre.

BOOK ON GRAPE-GROWING.—J. G. C., Neelly, Ark. It would be quite out of the question for me to give you full directions for trimming and handling the grape within the limits of these columns, and I would suggest that you buy a book, entitled "Bushberg Catalogue and Manual," published by Bush & Son & Meissner, of Bushberg, Mo., and sold at fifty cents.

EUCALYPTUS TREES.—F. E. R., Depeyster, N. Y. Eucalyptus seedlings are easily grown, and the seeds of the more common kinds can be obtained from most any of our larger seedsmen. The seed is very small, but the seedlings make a nice growth the first year. I do not know of any of them that are hardy as far north as New York. They are, however, very ornamental plants and well worth growing for decorative purposes during the growing season. The variety commonly grown is "Eucalyptus globulus."

BORERS IN POPLAR LUMBER.—E. F. C., Harmony, Minn. In some parts of northern Minnesota poplar has been badly eaten after it has been framed, so much so that almost all of the studding has had to be replaced. I do not know of any experiments that have been made for preventing this injury. I am quite sure, however, that if the joists, after being put in place, were painted or sprayed with some permanent mineral poison, such as corrosive sublimate, or cement paint with a small amount of white arsenic added, this injury could be entirely averted.

MIMOSA.—R. W. H., Jr., Centralia, Va. The specimen of pod and seed recently sent me leaves no doubt in my mind but that the tree you have is a true mimosa. I am very much inclined to think that it is the mimosa from Texas, but I did not know that the Texas species was hardy as far north as Virginia. The wood of this tree is probably valuable for posts, as all its near relatives seem to be very durable in contact with the soil. I cannot state definitely, however, in this particular case. I would like a specimen of the flowers and foliage when they appear.

GOOSEBERRIES DROPPING.—S. E. C., Crainville, Ill. I am not sure as to what the trouble is with your gooseberries that causes them to turn yellow and drop off before they are ripe, but think it may be due to some worm which bores into the center of the fruit. If the trouble results from mildew, which is often the case, it may be prevented by spraying the bushes, beginning as soon as the leaves show, say once in two weeks or less, with sulphid of potassium and water, at the rate of one half ounce to the gallon. This is a harmless material, and has proven a satisfactory remedy for gooseberry mildew.

CHERRY AND PLUM PITS.—H. B. B., Carbonhill, Ohio. Cherry and plum pits will generally grow if they are not allowed to get dry in the autumn and are kept mixed with sand or loam outdoors over winter. It seems to be very desirable to freeze these seeds in order to have them grow. If they get very dry before being planted they will often remain in the ground over one growing season before they will start. In fact, you will seldom get them all to grow the first season under any condition, and the second year you will probably in any case find some of them coming up very early in the spring. They may be planted in autumn as soon as gathered, if desired, but on account of their liability of being eaten by mice and squirrels I think it is generally best to plant early in the spring. It is important, however, to keep them moist and frozen over winter, mixing with sand or soil as recommended.

QUINCE-BORERS—UNPRODUCTIVE CHERRIES — LICE ON CHERRY-TREES — CURCULIO-STUNG CHERRIES.—C. W., West Suffield, Conn. The best remedy for quince-borers is to dig them out with a knife. The bushes should be gone over two or three times during the summer, from the middle of June to the middle of August. If, however, you could manage to keep the bark about your plum-trees coated with some protective covering, like soft soap, during June and July, you would find that it would largely prevent the borers from laying their eggs in the trees.——It is quite a fault of the Ox-Heart cherries that they are seldom very productive. They seem to do best, however, when they are mixed in with other varieties of cherries that flower at the same time. I am inclined to think that they are partially sterile at least to their own pollen.——Your treatment with tobacco-water to get the lice off the cherry-trees is probably as good as anything. The cracking of the bark on the trees probably has nothing to do with the falling of the fruit.——The rough, knotty cherries of which you speak are probably caused by the fruit being stung by the curculio, and the jarring-method, the same as for the plum, is probably the best way of getting rid of this trouble.

LIME WASH FOR SAN JOSE SCALE.—M. C. G., Crozet, Va. Lime-sulphur-and-salt wash is made as follows: Quicklime, thirty pounds; salt, fifteen pounds; flowers of sulphur, twenty pounds; enough water to make sixty gallons. Slake half the lime carefully, and place in a large kettle with twenty-five gallons of water; grind up the sulphur with a little water, breaking the lumps as fine as possible by passing through a sieve, and add to the lime; boil. As it boils, the liquid will gradually become thinner and thinner, the lime and sulphur dissolving simultaneously to form a deep orange-red solution. When the sulphur has apparently all entered into solution, which may take two hours or more, slake the remainder of the lime, add to it the salt, and pour the two into the lime-and-sulphur solution. Boil the whole for from half an hour to an hour longer, strain, and dilute with warm water to sixty gallons. Do not let it become thoroughly cold, but spray while yet warm. It is very important to be sure that the sulphur is thoroughly dissolved. The simplest way of making this material, where a large amount is to be used, is by boiling it with steam. This material is used before the trees bloom, and it has given most excellent results when carefully applied at this season. It has no detrimental effect even upon peach-trees, which are so often injured by spraying with kerosene.

In the Field

MY EXPERIENCE IN FEEDING ALFALFA TO HOGS

EXTRACT FROM PAPER READ BEFORE THE INTERSTATE SWINE-BREEDERS' ASSOCIATION AT LINCOLN, NEB., JANUARY 20, 1903, BY G. H. PAYNE

ALFALFA is a great subject. The more you see of it, the more you hear about it, the more you want to talk about it. It is one of the handsomest field-plants that grows, being the first to show green in the spring and the last to lose its beautiful color in the fall. Sheep love it, cattle live on it, chickens grow fat on it, and pigs will run for it.

My experience in feeding alfalfa to hogs is not extensive, although I have studied the subject very carefully for the last few years, being interested for some time in a small ranch at Sidney, Neb., where we run about two thousand cattle and put up from one thousand to one thousand two hundred tons of alfalfa each year; also being interested in several farms at North Platte and Lexington, in the heart of the alfalfa belt.

Wishing to satisfy ourselves more fully on the subject, we determined a year ago to make a thorough test of the value of alfalfa for hogs on our farms at North Platte and Lexington. I can describe our progress no better than by quoting from a report we issued on November 23, 1902, as follows:

HOGS ON ALFALFA—EXPERIMENTS CONDUCTED ON THE SUMNER RANCH, NORTH PLATTE, NEB.

On the above farm there is a small tract of land—twenty-one acres old alfalfa, and five acres new alfalfa sown in 1902; total, twenty-six acres.

The first crop of alfalfa was cut June 1st, and from that time up to date has been pastured with an average of about one hundred and sixty head of hogs of all ages.

In addition to running one hundred and sixty head of hogs on this twenty-six acres of land, the hay was cut three times, making a total of eighty-eight and one half tons of hay. This was sold to a cattle company and fed out on the property, we doing the feeding at five dollars a ton, netting the owners of the property over thirteen dollars and fifty cents an acre for the alfalfa, in addition to pasturing, as above stated, one hundred and sixty head of hogs. The hogs were weighed on the fourteenth day of each month, with this result:

EXPERIMENT WITH FIFTY-NINE STOCK HOGS

June 14th they weighed an average of one hundred and eight pounds each. August 14th they weighed an average of one hundred and forty-four pounds each.

This was a gain of thirty-six pounds each in sixty days, or six tenths of a pound a day. These hogs were fed, as near as could be measured, one half pound of shelled corn a day, the gain in weight each day being greater than the grain fed. This was a very satisfactory showing, the gain costing less than one cent a pound for grain fed.

EXPERIMENT WITH THIRTY SHOATS

August 14th they weighed an average of one hundred and thirty-one pounds each. They were put in separate pasture and fed about four pounds of ground wheat and rye a day, with all the alfalfa they wanted to eat. October 14th they weighed an average of one hundred and ninety pounds each.

This was a gain of fifty-nine pounds in sixty days, or practically one pound each a day. This experiment showed an unsatisfactory gain in comparison with the large increase in grain fed, but the only solution we can give is that the ground wheat and rye fed with the alfalfa was not as good a balanced ration as corn fed with alfalfa, and that where the grain was increased they ate less alfalfa.

EXPERIMENT WITH TWENTY-TWO THOROUGHBRED DUROC JERSEY GILTS

September 14th they weighed an average of one hundred and one tenth pounds each. November 14th they weighed an average of one hundred and fifty-one and three tenths pounds each.

This was a gain of fifty-one and two tenths pounds each in sixty days, or eight tenths of a pound a day. These hogs were fed one pound of ground wheat and corn each day and alfalfa pasture. This is considered the best gain of all the experiments, eight tenths of a pound a day being considered a very large gain with such a small grain ration, and the grain being wheat and corn. These hogs were in excellent flesh, and took very heartily to the alfalfa pasture. The small ration of grain named went direct to gain, almost pound for pound.

It is generally conceded that it takes from four and one half to six pounds of grain to make one pound of pork. The experiments above prove beyond all question of a doubt that a gain of one pound of pork can be made with from one to two pounds of grain and such alfalfa pasture as a hog will eat.

IN CONCLUSION

First, we do not believe hogs will thrive on alfalfa hay alone, nor do we think it pays to expect young pigs are going to do well on alfalfa pasture only.

Second, we do believe that you can turn shoats on an alfalfa pasture in the spring and with one pound of corn for each head a day make a gain of from one half to three fourths of a pound a day, or from one hundred and twenty-five to one hundred and fifty pounds during the six months of grazing-season, which is making pork at a low cost.

Third, we also believe from experiments we have made that by chopping alfalfa hay (this must be good hay, where the leaves have been preserved), and mixing this with ground corn at the rate of about one pound of corn to five or six pounds of alfalfa, that it will make a ration that will carry stock hogs over the winter as satisfactorily to the owner as the ordinary ration—mostly of corn—at one third the cost, and the animal will be in better condition to ward off disease.

CORN-BREEDING

Let me say to the practical corn-breeder that I would urge only three things:

First, adopt the row system, plant twenty to forty good seed-ears, one ear to a row; then select your seed for the next year, on the basis of performance record, from about ten rows which produce the highest yield and the best ears.

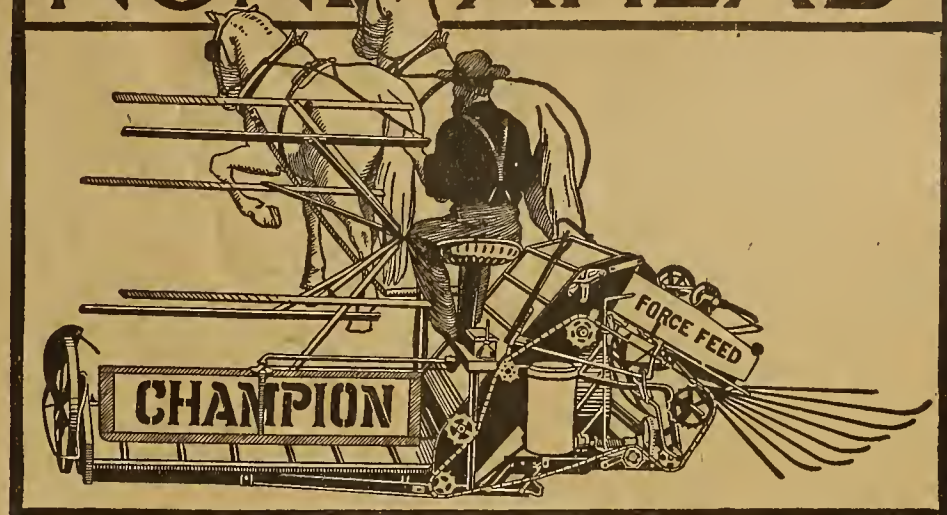
Second, breed corn for a purpose. If you wish to feed corn, breed and grow high-protein corn. If you wish to grow corn for the starch and glucose factories, breed and grow corn the factory wants.

Third, until we have facts, don't devote too much time to "fancy points;" such as trying to produce kernels on the tip-end of the cob, or trying to reduce the size of the cob, or trying to make the tip-end of the ear as large as the butt, or pulling out suckers, or doing other things the ultimate effect of which is unknown. It is not yet known with any degree of certainty whether such things are beneficial, injurious or without effect on the production of the crop.

Don't feel that you can't breed corn even if you are unable to detassel barren stalks. Last year we had fields with fifty per cent of barren stalks, this year in some fields from that seed we have about five tenths of one per cent of barren stalks, and these examples fairly illustrate the tremendous effect of soil and season and condition of growth, as compared with breeding, upon the production of barren stalks. Barren stalks bear no ears, and the whole tendency of Nature's law is to breed them out, and even without the intervention of man. As a matter of fact, in order to give to barren stalks an equal chance with ear-bearing plants to propagate themselves, we should be obliged to detassel every ear-bearing plant in the field. In studying this problem it should be borne in mind that the female parent of the barren stalk was not barren.—C. G. Hopkins, in Bulletin No. 28 of the Illinois Experiment Station.

Don't wait until the iron's hot,
But make it hot by muscle.
Don't wait for wealth your father's got—
Take off your coat and hustle.
—The Busy Man's Friend.

NONE AHEAD



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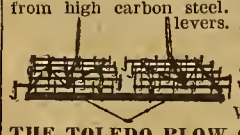

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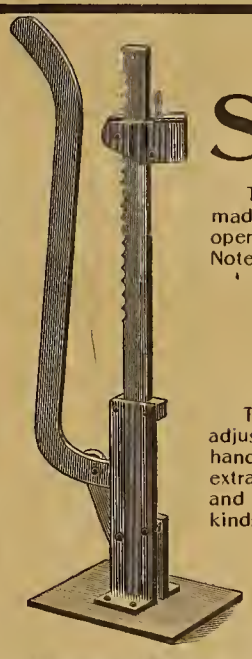

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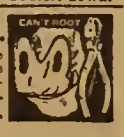

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THE hog can hardly be classed as an attractive animal in name, nature or appearance, but it has put more struggling farmers and stockmen on their financial feet than any other domestic animal raised in our country.

The nature and well-being of the hog are less understood, and considered, too, than is the case with other stock, resulting from the mistaken idea that the hog can endure all kinds of treatment and yet thrive. Very few of the millions annually raised are spoiled with kindness, but much the greater proportion have too much of the "root, hog, or die" treatment.

The greatest foes to the well-being of the hog in the more northern portions of our country are cold and dampness. The hog and human families are quite similar in at least one respect, which is their need of warmth and a dry, comfortable bed when at rest. The hog, coming originally from a hot climate, is still as unprotected by his scant, bristly covering as ever. In fact, the bristles have been bred off instead of on, there now being but little between his skin and the weather on a well-bred hog.

The few hogs previously referred to that are too carefully coddled and cared for are apt to be found among breeding-stock. The brood-sow and boar should above all others be required to take plenty of outdoor exercise, to insure hardiness and vitality, so essential for transmission to their progeny. To secure such fitness of physical condition it is not necessary to expose them to storms and compel them to root up acres of ground to secure their living, but it is quite necessary that they spend a considerable portion of each day "rustling" for a part of their food instead of becoming fat and flabby in closely confining, ill-smelling pens.

Like man, the hearty hog cares little for cold and stormy weather while he is in motion feeding and exercising, but his bed must be dry and protected from drafts and cold, or the effects will be rheumatism, chills, fever and general unthriftiness, if not serious disease itself.

Many swine breeders and feeders are aware that it is possible to grow young, well-bred, healthy pigs to a live weight of two hundred and fifty to three hundred pounds at an age of six or seven months by intensive feeding, the best of care and close confinement; but if the growth-forcing is continued much longer, there is a reaction and liability to disease that will interfere with the profit. Even by this method of feeding for early maturity the chances for success are much surer when the sucking-pigs and breeding-sows have been allowed unlimited exercise, thereby laying in a reserve stock of bone and nerve-force to help carry them through the strain of heavy feeding and close confinement later on.

During the cold winters and hot summers of the northern and middle sections of our country the hog requires protection from both extremes to obtain the best results. The practice of piling up to obtain warmth where numbers run together is responsible for much injury and disease by the overheating resulting. There is often quite as much loss occasioned by lack of protection from summer heat as from winter cold. The hog in a state of nature will camp near a watercourse or bog-hole during the heated season, where, when occasion requires, he will cool and cleanse himself, and at the same time provide himself with a fly-screen of mud.

The writer has found that a hog-run containing such natural or artificial wallows of pure water and uncontaminated mud makes a very paradise for hogs during hot summer days, and increases the thrift, growth and profits materially. Especially are the breeding-sows that are to farrow during the heated season benefited by clean, fresh wallows. Many valuable animals and their litters are lost every year before and at farrowing-time that might easily be saved if cool, clean wallows were within their reach.

The importance of feeding and breeding of swine is not to be underestimated, but their housing and comfort are of even greater importance, since the expense for the first goes for naught unless their physical comfort is also provided for.

B. F. W. THORPE.

COW-CATCHERS

I never had a calf to die from starvation. I have lost enough by overfeeding to pay the subscription price of the FARM AND FIRESIDE for over a thousand years.

Many a good cow shows up badly because she has had a stingy, ignorant, scrub owner, and redeems herself when given a fair chance. When you must buy, if you will buy, buy this last kind.

Withhold solid foods until the calf will take them dry, which is usually at about three weeks of age. As the calf grows older, encourage big eating in order to secure good storage-capacity, and with sound and nutritious foods stimulate both digestion and ability to digest.

While insalivation does not appear absolutely necessary for the proper digestion of milk, it is necessary for the solid foods, and the practice of mixing meals, condimental stuffs, gruels and the like with the milk of the calf to be drunk, in the case of delicate calves is very pernicious, and I think in any case injurious.

The cow makes milk as a function of her economy. Just how she does it is not yet settled, but it is settled beyond any need of experiment that to do it she must have plenty of digestible food. Hence the care in the upbuilding of the food-capacity of the future cow in the days of her youth, lest in the days to come she will complain unto herself, "Here is food galore, and I am full on half a mess."

If the dairy herd is to be improved or increased by breeding your additions to it, do not let any false ideas of economy in feeding spoil all the cumulative advantages you may possess in the heifer from heredity. She is started toward cowhood before she has finished her growth; so therefore to continue her growth and at the same time develop her material functions and supply the elements of growth and life to the unborn offspring is a threefold demand that can only be met by wise and generous feeding. By lack of it a good cow is stultified into the crowded stalls of mediocrity, and all the value of heredity and pedigree nullified.

By rich milk we have commonly come to mean milk rich in butter-fat. I believe it is admitted that milk richest in butter-fat is also richer in casein; and while an excess of butter-fat is not likely to disarrange the stomach of the calf, an excess of casein will. Therefore, allowing the milk to cream, and removing this to reduce the richness of the milk to the needs of the calf, is an aggravation rather than a modification, for by the skimming process the proportion of casein has been increased, while the effort that should have been made should have modified the casein. This can be accomplished by simply adding water to the whole milk, maintaining blood-temperature.

The calf's food should be its mother's milk at the warmth of her blood. It is assumed that the calf is from some of the cultivated dairy strains, and it must be remembered that while man, by his art and skill in bringing into harmonious relations the characteristics of individuals, and fixing those characteristics into types, has produced an artificial functional performance of the animal, he has not as yet endeavored to change the functions of animal nutrition. The dam has been, through long lines of heredity, encouraged in the production of milk of unbalanced food proportions, while the constitution of the offspring has remained the same as that coming down to it from remote ancestors. So it is readily seen that the mother's milk as she gives it to man is not necessarily in the right proportion for the nourishment of the infant calf.

W. F. McSPARRAN.

THE **SHARPLES** Tubular Dairy **SEPARATOR**

Here is a sample of the kind of letters we get every day:

"Have often heard of the Sharples Tubular Separator, but never investigated it until now. I thought all separators more or less alike until I tried your Tubular. I have used other separators, but never knew what a separator could be or should be, until I got this. No fat left in the skim-milk—half the labor to turn it—one-tenth the number of parts to clean. The talk of others misled me to my own loss, but now I know better."

Every dairy farmer can have a free trial of the Sharples Tubular and decide in accordance with his own judgment—not talk. Catalog No. 112 free.

SHARPLES CO., Chicago, Ills. P. M. SHARPLES, West Chester, Pa.

Let us put your name on the free list of the "SEPARATOR"—a good paper for dairymen and farmers.

Wise Man's Wagon.

The man who has had experience in running a wagon knows that it is the wheels that determine the life of the wagon itself. Our **ELECTRIC** STEEL WHEELS have given a new lease of life to thousands of old wagons. They can be had in any desired height and any width of tire up to 8 inches. With a set of these wheels you can in a few minutes have either a high or a low down wagon. The Electric Handy Wagon is made by skilled workmen, of best selected material—white hickory axles, steel wheels, steel bounds, etc. Guaranteed to carry 4000 lbs. Here is the wagon that will save money for you, as it lasts almost forever. Our catalog describing the uses of these wheels and wagons sent free. Write for it.

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Seeds the Kind that Leads cost more—yield more. sold by all dealers. 1903 Seed Annual postpaid free to all applicants.

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Carriage, Spring Wagon, Delivery Wagon, or any other kind of a rig, or a harness or saddle until you have seen the **Wonderful values** we are offering. **Write for particulars regarding our Special 60-Day Offer.** Never before have **COLUMBIA VEHICLES** and **HARNESS** been offered at as low prices as we are now quoting. **Our catalogue is Free for the asking. Write for it.**

We have vehicles and harness of every style and description and ship direct from our factory to you at wholesale factory prices, (one slight percentage of profit over actual cost of production). Save the dealer's profits and fatten your own bank account, by buying Columbia Vehicles and Harness direct from the manufacturers. We are offering the best in the world for the money and give a written guarantee with each Vehicle. Address,

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HOGS ARE HIGHER!

Get ready for the boom by breeding now. We send a sample pair of our Famous O.I.C. Hogs on time and give agency to first applicant. Two of these HOGS weighed 2806 lbs. Write today.

L. B. SILVER CO. 101 Hog Bldg. Cleveland, O.

Newton's Heave, Cough, Distemper and Indigestion Cure. A veterinary specific for wind, throat and stomach troubles. Strong recommends. $1 per can. Dealers, mail or Ex. paid. Newton Horse Remedy Co. Toledo, Ohio.

ABORTION Retention of Placenta and Failure to Breed

Kellogg's Condition Powder is a positive cure for these diseases. Write for circular. Address H. W. KELLOGG CO., St. Paul, Minn.

Live Stock and Dairy

THE DUAL-PURPOSE COW

RECENTLY it was my good fortune to listen to a lecture by one of the best judges of dairy-cows in this country. The gentleman is truly an expert, and is sought as a judge by our greatest fairs. As I listened to him I could see more clearly than ever that the true dairy-cow is built for a purpose, and that a single one. In her make-up there is no thought of meat for the block. It is a matter of nervous force, of open conformation, of great milk-veins, of capacity for storing and digesting food and of willingness to convert the food into milk, and not into flesh for herself. She is an animal with a purpose—a single purpose—and she does her work well. She has been bred to serve the ends of the dairyman who has a single purpose—production of milk or butter.

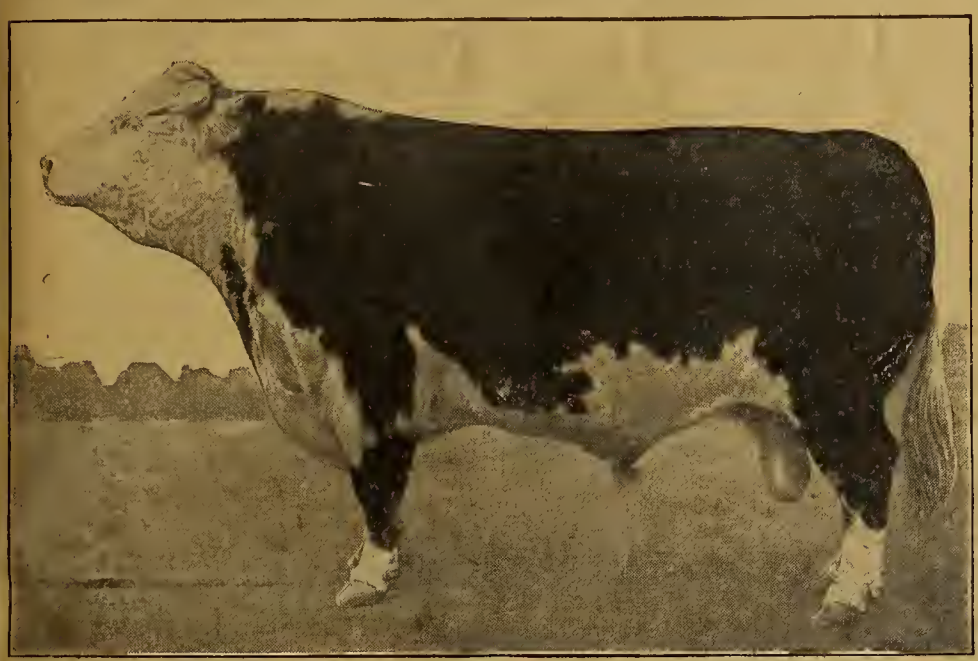
On the other hand, there has been developed the perfect beef-animal. She has acquired the power of applying her food to the laying-on of muscle and fat. To such perfection has she arrived that she may not give enough milk to nourish her own calf. It is her business to provide the maximum amount of choice cuts for the butcher, and to that end she uses the food that is given her. She also is an animal with a purpose, and she serves the ends of the feeder who has a single purpose—that of producing high-priced meat at a minimum of cost.

But between the dairyman on one side and the feeder on the other side is a vast number of farmers who want, and need, a few head of cattle on each farm. They have some grazing-land and some feed in the barn. There is a fair local market for butter, and the farm income can be helped out by the product of three or four cows. The cows are needed not only to furnish some dairy product, but to provide calves for grazing and feeding.

The pasture-land should not be under the plow, and the surplus grain and rough feed should not be sold off the farm. The fertility should be kept at home, and whatever profit there may be from the winter labor of feeding is needed. It is important that the calves should be good grazers and feeders, or there is a sad waste of the feed; and also it is necessary that there be a fair product of milk, so that there may be some income each week from the cows.

Now, this means a demand for a dual-purpose cow. It is idle to say that there can be no such thing. The dairymen have bred the cow to one extreme, and that is just right for them. Some stockmen have bred her to the other extreme, so that the milk has become an entirely subordinate item, and that is just right for the feeder. But between these extremes there remains the animal that has been bred without losing sight of the two natural functions of the cow. I do not say that she will produce as much milk as some dairy breeds or as much beef as some beef breeds, but she is a good feeder and yet produces a good quantity of milk, and she is the only animal that can fill the place on these many farms that I have described, where a few cows should be kept to furnish some butter and some calves for grazing and feeding.

The great dairy interests and the great feeding interests have dominated public sentiment, and the impression has grown that cattle must be strictly for one purpose or for the other. The needs of the small farmers have been overlooked too much. The result is that one sees a few poor little yellow steers grazing on hillsides that should be turning their grass into growthy animals for stall-feeding the next winter, or else he sees these hillsides under cultivation by crops that will be sold off the farm because there are no profitable animals to which the grain and roughage can be fed. The little dairy-cows are making milk, but they are few in number because dairying is not the chief business of the farm. The cows upon it should be producing calves to keep up the supply of feeders on the farm, and at the same time they should provide a good amount of dairy products. Here is the place for the dual-purpose cow, and there are now some strains of some breeds that should be scattered over a wide territory where neither dairying nor cattle-feeding can be successfully made a specialty. DAVID.



MARCH ON VI.
Three-year-old Hereford. Sold for $10,000. First in class at Iowa, Minnesota and St. Louis Fairs. Head of Sweepstakes Herd at St. Louis Fair

IS THE CREAMERY WANING?

Just now there are some indications that it is. Within the past few weeks whole blocks of creameries operated under one head have gone by the board, while many single concerns located in various parts of the country have shut their doors. What is the matter? Has the creamery outlived its usefulness? I do not think so. As an institution the public creamery has always been a friend to the farmers. It does not seem to me that we can afford to do without it. But there are creameries and creameries. I fancy the trouble at present is that we have been building creameries where none were needed, increasing the capacity of old ones when those already in operation were large enough and good enough to answer every purpose, and in other ways overdoing the matter. I know of several creameries which have grown up directly out of spite between creamerymen. This is not right; it is not wise. Still another reason why so many creameries have gone to the wall of late is the rapid growth of the so-called coöperative system. Men who make it a business to locate and build up creameries have persuaded the farmers in many sections to put their money into these concerns. Almost invariably too much money has been invested in these wild-cat speculations. Soon the farmers found this out. They saw that they were beaten, and have been getting out of a bad scrape as well as they could. The way out is clear. We must stop building creameries unless they are needed. We must support those doing a legitimate business, and let the rest go. If we do this the matter will work itself out.

E. L. VINCENT.

HARD FACTS ABOUT CREAM SEPARATORS

What the intending buyer of a cream separator wants are HARD FACTS—not fanciful nonsense and alluring misrepresentation.

He doesn't care much for silly ditties about "big brother" and "little sister" separators; nor "high" and "low" feed twaddle which means nothing to any one; and he may well steer clear of fake skim-milk "records" which have no actual foundation.

But what does concern him are these HARD FACTS—

That a De Laval Cream Separator is as much superior to imitating machines as such other separators are to gravity setting systems.

That protecting patents make and keep them so—together with far greater experience and superior facilities in every way for cream separator manufacture.

That every big and experienced user of cream separators knows this and uses De Laval machines exclusively—both in factory and farm sizes.

That it is as foolish to-day to buy other than a De Laval separator as it would be to buy an old-fashioned reaper if an up-to-date combined mower and reaper could be had for the same money.

These are simple HARD FACTS plain to any one. A machine itself will best illustrate them. The nearest local agent will be glad to arrange this to your own satisfaction.

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General Offices: 74 CORTLANDT STREET NEW YORK

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ANOTHER GREAT VICTORY FOR THE U. S.

At the VERMONT DAIRYMEN'S ASS'N MEETING at Rutland, Jan. 6—8, 1903, there were 150 entries and

THE BUTTER SCORING THE HIGHEST—98½ POINTS,

was made from cream separated by a U. S. Separator, and

WON THE GRAND SWEEPSTAKES AND GOLD MEDAL.

This butter not only scored the highest at this meeting, but it received the

HIGHEST SCORE OF ANY BUTTER AT ANY CONVENTION THIS SEASON.

To make the best butter, one needs the best apparatus.

BUY A U. S. SEPARATOR AND PROVE IT.

VERMONT FARM MACHINE CO., Bellows Falls, Vt.

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Sloan's Liniment

There is nothing like it to kill a Spavin, Curb or Splint.

Invaluable for cuts, kicks or bruises. Manufactured scientifically by a famous Veterinarian.

Sold by Dealers generally.

Horse size, 50c. and $1.00 per bottle. Family size, 25c. per bottle.

PRUSSIAN HEAVE POWDERS

CURE Horses of HEAVES, COUGH, Distemper, Pink Eye or Indigestion. A great BLOOD PURIFIER AND CONDITIONER and a sure cure for all ailments from which heaves arise.

CURED 34 HORSES.

I have been using Prussian Heave Powders the past eight months and in that time have cured 11 horses of Heaves, 14 of Distemper and 9 of Chronic Cough. The Prussian Remedies have gained a great reputation in this section.—Ernest Behncke, Newark, N. Y.

PRICE: AT DEALERS, 50c; BY MAIL, 60c

FREE:—68-page Farmer's Hand Book. PRUSSIAN REMEDY CO., St. Paul, Minn.

$5 ADMIRAL HAY PRESS Co AUTO-WHIP-TEAM-DRIVER KANSAS CITY, MO. FITS ANY HAY PRESS. PAYS FOR ITSELF IN 3 DAYS. AND WORKS A LIFE-TIME FOR NOTHING— SENT ANYWHERE ON TRIAL-YOUR MONEY BACK IF WANTED

TREES $8 per 100 APPLE, PEAR, CHERRY and PEACH; healthy, true to name and Fumigated. All kinds of trees and plants at low wholesale prices. Don't buy until you get our catalogue, which is free, or send list of wants for special price. Address RELIANCE NURSERY, Box F, Geneva, New York.

The Reputation of our ROLLERS is world-wide. Strongest, most durable and easiest-running rollers made. Self-oiling hubs. Revolving shafts. Wood, iron and steel rollers. Steel and wood frames. Cheapest and best rollers made. We make over 40 different styles and kinds of rollers, and can suit you no matter what kind of roller you may want. All kinds of other agricultural implements. Write for catalogue and prices.
THE TOLEDO PLOW CO., Div. F. Toledo, Ohio

OUR SPECIAL OFFER.
To secure Agents everywhere, we will, upon receipt of $1.50, deliver free, by express, anywhere in the U. S. sample of our new improved NOVELTY SPRAY PUMP, complete with all attachments. Stops insect ravages, insures full fruiting, and is a model vehicle and window washer. Its low price and effectiveness make it a ready seller. Confidential terms, prices and booklet, "Results of Spraying," on application. Write to-day.
THE BERGER MFG. COMPANY, 1038 Belden Ave., Canton, Ohio.

The "Planet Jr." 12 Tooth Harrow, Cultivator and Pulverizer

shown above, is the special friend of the strawberry grower, market gardener and trucker. It is scarcely less highly appreciated by the general farmer who likes clean growing crops and thorough cultivation. The twelve teeth may be set at two angles, and with the aid of the upright lever which expands or closes the harrow to fit any width of row, makes a clean sweep of the space at one passage. No weed can withstand such thorough stirring and mixing of the soil. The long lever operates the wheel and controls the working depth perfectly. The pulverizer behind passes over all and smooths, crushes and levels the whole. The fatal "root pruning" is avoided and fine surface cultivation

Planet Jr.

assured. Being made entirely of the best material, it will last indefinitely.

The No. 25 "Planet Jr." Combined Hill and Drill Seeder, etc., as below, is shown here to let us remind you that we are the largest makers in the world of hand, garden, seeding and cultivating implements, including plain and combined Seed Sowers, Wheel Hoes, Hand Cultivators, Walking Cultivators and One and Two-Horse Riding Cultivators, Special Sugar Beet Tools, etc. Our new 1903 catalogue is beautiful and instructive. It contains over 100 illustrations with full descriptions and prices. It costs you nothing and will make you money. Write for it.

S. L. ALLEN & CO., Box 1107-F Philadelphia, Pa.

No Excuse Now

for letting the insects and disease destroy your fruit, vegetables, and flowers when this powerful

ALL BRASS SPRAY PUMP

hose and spraying nozzle will be delivered to any express office east of the Missouri River or north of Tennessee for $3.00. It is made entirely of brass, there is nothing to rust out, wear out or give a moment's trouble. It will handle any of the Spraying Chemicals, and will cover tree and vine with a spray as fine as fog. Send for full description.

THE HARDIE SPRAY PUMP MFG. CO., 78 Larned Street, Detroit, Mich., and Windsor, Ont.

Seed Potatoes

$1.50 a barrel and up.

Michigan Northern Grown are always the best. 30 best varieties. Blight proof, enormous yielders. Highest quality, lowest prices. Sold in any quantity, one pound to a carload. 100-page Catalogue FREE on request.

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Largest growers in America of Vegetable, Field and Flower Seeds.

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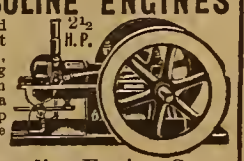
develop 2½ horse power and you'll be amazed at the great service at little cost. Simple, safe, easy to operate, long lasting. Anybody can run them. You need one for a score of duties. All sizes up to 300 Horse Power. Write for FREE catalogue.



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The Auto-Sparker

does away entirely with all starting and running batteries, their annoyance and expense. No belt—no switch—no batteries. Can be attached to any engine now using batteries. Fully guaranteed; write for descriptive catalog.

MOTSINGER DEVICE MFG. CO. 24 Main Street, Pendleton, Indiana

Popular Prices.

For Easy Gardening

nothing has ever been made to equal **Matthews' New Universal Seed Drill.** Sows all kinds of garden seeds right. We also make single and double wheel hoes, and combined 1 and 2 wheel cultivators and drills. Suitable for every class of work. Write for our new 1903 catalogue of latest styles. We mail it free.

AMES PLOW CO., 35 Market St., BOSTON, MASS.

The "Tecumseh" Combination Wagon Box, Hay and Stock Rack

Saves more time and labor than any other farm implement. Write for circular and prices. **Agents Wanted.**

GOODSELL MFG. CO. N. Erie St., Toledo, Ohio

BUY TELEPHONE BONDS

Six per cent interest; principal and interest paid in gold; ten banks for references. Write to-day for prospectus.

IRA T. SWARTZ, PIQUA, OHIO

Cream SEPARATORS

All about them and other things for the dairy and creamery. A. H. REID, Philadelphia.

The Grange

By MRS. MARY E. LEE

PRIZE-WINNERS

IN 1902 the executive committee of the Ohio State Grange offered four prizes to the granges making the largest purchases from the firms who advertised in the "Trade Circular." Following are the prizes and prize-winners:

First prize, twenty dollars' worth of books for a grange library, Madison Grange 1507, Scioto County. Amount, $6,421.79.

Second prize, fifteen dollars' worth of books for library, Blue Ridge Grange, Coshocton County. Amount, $1,444.82.

Third prize, ten dollars' worth of books, Columbia Grange 1451. Amount, $1,717.62.

Fourth prize, Rehobeth Grange 1554, Perry County. Amount, $1,690.14.

This is a splendid showing of confidence in R. L. Holman, in charge of the coöperative work. No doubt each individual member who contributed his share toward the winning of these prizes saved enough on their purchases to handsomely furnish their own homes with libraries. It is a matter of wonder to those who buy through the grange, and effect a handsome profit thereby, that more farmers do not avail themselves of the trade-arrangements. Mr. Holman, who has charge of this work, is a man of rare business ability and strict integrity. He has been able to secure from dealers wholesale prices on most of the things used by farmers. Men with less business acumen or rugged honesty could not have secured such advantageous terms, having only probabilities of trade, not actual orders to place. Mr. Holman has persevered until the grange now offers to farmers the opportunity of buying small quantities at wholesale rates. If you have never bought your supplies through the grange, give it a trial this year.

"THE OCTOPUS"

Here is a book that barely missed being the great American novel we have been hearing about so long, but which doesn't arrive. If Mr. Norris had not been in quite such a hurry, and had taken more care; if he had not overdrawn sometimes, and if he had not steeped himself in Zola (he must have done so) until he caught his style as well as his spirit, we might have bowed to him as a, if not the, prince of American letters.

We are not sure, though, but that some things seemingly careless are parts of Mr. Norris' art. Thus, on pages fourteen and forty-seven nearly the same sentences occur about the same thing. We note a number of instances of the kind not quite so marked. It would seem almost of purpose, like a piece of music that comes again with its refrain.

The American farmer may well read the story. It tells the wrongs wheat-farmers in California suffered at the hands of the men who managed a great railway. It is founded on fact, perhaps largely so. The same things are going on in greater or less degree all over the land. If the farmer can read it calmly, making due allowance for the author's intensities, it may help him to get ready to take his part in the clearing up of some very great questions, in the righting of some very great wrongs, for which tasks our country is girding its loins—slowly it may be, but surely.

Some parts of the story are very fine, particularly the salvation of the character of Annexter through his love for Hilma Tree. The interest grows to the end, and the reader will likely find himself sitting up late if he begins when the curtains are drawn for the lamplight.

SYSTEMATIC LECTURE-WORK

A number of lecturers have asked us to give topics for discussion, with references. We have consulted authorities, and have decided to prepare a series of topics on the following general subjects: The farm, sanitation and hygiene, political economy, general literature. We hope to have the matter in hand by the next issue. While it will be well to get a number of reference-works, the topics will be taken from not more than two books in each division. Where advisable, one only will be used. This will cost but little, and the grange or individual will have valuable books for their library. We will order books for any desiring to enter the course. If half of those who have asked us to do this work avail themselves of it, we will feel that the extra time and expense will be justified. However, we hope a great many more will join our circle. This is not meant to supersede, but to supplement, the course laid down by the national and state lecturers.

RECENT CHANGES IN GRANGE CIRCLES

C. M. Freeman, secretary of the Ohio State Grange and editor of the grange department of the "Stockman and Farmer," was chosen to fill Doctor Trimble's unexpired term as National Secretary. S. E. Strode, for the past four years Ohio State Grange lecturer, succeeded Mr. Freeman as editor. John Begg by an almost unanimous vote became Ohio State Grange lecturer. We bespeak for each of the gentlemen success in the new fields of labor which they have entered.

THE OBSERVATORY

The observant man is a resourceful one.

Beware of the man with half-shut eyes. He's not always dreaming.

Men are anxious to see any good man in office—except their neighbor.

There are two things in this life for which we are never fully prepared—twins.

Many a man has lost a good position in this world through letting go for a moment to spit on his hands.

It is the useless work tyrannical custom says is necessary that makes women tired, nervous and cross.

Don't let this spring slip by without planting some hardy trees and shrubs about your grange halls and schoolhouses. Of course, the lover of beauty will beautify his home grounds.

Is your ideal of beauty a lot of articles more or less clumsily fashioned, cumbering walls, table and desk? Or is it the divine power to appreciate a sunset, a flower or a growing plant?

Not one of the great movements for the betterment of mankind began amid blare of trumpets and huzzas of the people. "Think as we do, do as our fathers did, or we'll stone you," is the cry of the multitude the reformer would save.

Hon. Kenyon L. Butterfield, for several years the able editor of the grange department of the "Michigan Farmer," has been elected president of Rhode Island Agricultural College. Mr. Butterfield will bring zeal and energy and a cultured mind to his duties.

If I belonged to a dying or dead grange I would hunt the death microbe and kill him. Death, save of superstition, error, ignorance, is very unpopular these days. Tact, perseverance and a broad and comprehensive sympathy are powerful weapons over the death microbe.

One broad-minded, generous, beauty-loving person in a neighborhood gives it a standing and fires the ambition of others to be and do likewise. There is a spark of divinity in each that flames upward at the slightest friction. Raise the standard of taste of your community by working out your own inspirations.

The grange has more than half a million membership; above sixty-five thousand dollars in the national treasury; each state treasury in a solvent and satisfactory condition. It has the proud distinction of securing more state and national laws in the interests of agriculture than all other organizations combined. It fosters self-help, teaches better methods of agriculture and business, encourages better homes and a higher type of citizenship. It costs but one dollar and twenty cents a year for membership. Join the grange.

MONEY FROM POULTRY

Are you interested in poultry? Do you want to get the best, most up-to-date information about making your poultry pay?

There is a monthly illustrated poultry paper published in St. Paul, Minnesota, which gives you each month just the sort of information you are looking for. This paper is the

POULTRY HERALD

Each issue is interesting and helpful.

SPECIAL OFFER The regular subscription price is 50 cents per year. To readers of FARM AND FIRESIDE the publishers will send *Poultry Herald* for one year for 25 cents, or we will send *The Herald* for one year and also **THE POULTRY MANUAL,** *a Guide to Successful Poultry Keeping, for 50 cents.*

The Poultry Manual is the most attractive, most helpful work on poultry keeping. It is splendidly illustrated by the world's greatest poultry artist, *Franklane L. Sewell.* These illustrations alone cost over five hundred dollars. They show the great artist's ideas regarding the leading standard varieties of poultry. Mrs. Ida E. Tilson, widely known as a lecturer on poultry at farmers' institutes, also contributes valuable articles on care of poultry, feeding, housing, remedies for poultry diseases, etc.

This is just the right time to subscribe for a poultry paper, and this is the best subscription offer you will have this year.

Write to-day, mentioning this advertisement, to

WEBB PUBLISHING COMPANY, ST. PAUL, MINNESOTA

Farm Wagon only $21.95

In order to introduce their Low Metal Wheels with Wide Tires, the Empire Manufacturing Company, Quincy, Ill., have placed upon the market a Farmer's Handy Wagon that is only 25 inches high, fitted with 24 and 30 inch wheels with 4-inch tire, and sold for only $21.95.

This wagon is made of the best material throughout, and really costs but a trifle more than a set of new wheels, and fully guaranteed for one year. Catalogue giving a full description will be mailed upon application by the Empire Manufacturing Co., Quincy, Ill., who also will furnish metal wheels at low prices made any size and width of tire to fit any axle.

Spring Tooth HARROW On Wheels

Lightest Draft Harrow made. Saves at least a half horse power over other makes. **Adapted to any soil.** Seat adjusted without bolts. Used either as walking or riding harrow. Teeth controlled by lever. Easily cleared of rubbish. Made of very best materials. Write for free catalogue.

Agents wanted

The Hench & Dromgold Co., Mfrs., York, Pa.

KILLS ALL WEEDS

Expands To 7½ ft. Narrows To 30 inches

NOTE THE "A" SHAPE.

This admits of widest adjustment— **7 1-2 feet wide** for field work and can be narrowed down to **30 in.** for work **between rows.** Front wheel makes it run easy and steady. Furnished either with round teeth or with flat to suit the different soils, as we are licensed by the Hallock Weeder Company to use their famous flat tooth. We mail Weeder Booklet Free. We also make a full line of Corn Planters, Cultivators, Harrows, Rollers, etc. Ask for Catalogue C.

KEYSTONE FARM MACH. CO., 1551 N. Beaver St., York, Pa.

OUR LOW HITCH DISC HARROW

Best, simplest, strongest and most durable Disc Harrow made. All steel. Double levers. Low hitch. Center draft. All sizes. With or without seeding attachments. Write for catalogue and prices.

The Toledo Plow Co. Div. F, Toledo, Ohio

BUY DIRECT FROM FACTORY, BEST MIXED PAINTS

At **WHOLESALE PRICES,** Delivered **FREE** For Houses, Barns, Roofs, all colors, and **SAVE** Dealers profits. In use **61 years.** Officially Endorsed by the Grange. Low prices will surprise you. Write for Samples. O. W. INGERSOLL, 239 Plymouth St., Brooklyn, N. Y.

BUY THE BENNETT STUMP PULLER TILE DITCHER

Handy Farm Wagon & CORN HARVESTER Cat. each free. H. L. Bennett, Westerville, O.

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To Good Men and Women introducing our King Butter Separators. Produce Best Grade of Butter from Cream or Milk, Sweet or Sour, in less than 5 Minutes. THE WILLARD MFG. CO., Dept. 52, Chicago, Ill.

$8 Paid Per 100 for Distributing Samples of Washing fluid. Send 6c. stamp. A. W. SCOTT, Cohoes, N. Y.

A Chain
is no stronger than its weakest link.
A fertilizer deficient in
Potash
is just as dangerous as a chain with a cracked link.
Our money winning books are needed by every man who owns a field and a plow, and who desires to get the most out of them. They are *free*. Send postal card.
GERMAN KALI WORKS,
93 Nassau Street, New York.

Brings Big Hatches
That's the test of an incubator and that's the record of the
SUCCESSFUL.
SUCCEED WITH A SUCCESSFUL
Don't experiment. Get a time tried and proved incubator. The Successful not only hatches perfectly, but it will last a life-time—does not swell nor shrink. Get our big incubator book (156 pages) free. Other catalogues in 4 languages.
Des Moines Incb. Company,
Dept. 61 Des Moines, Iowa, or Dept. 61, Buffalo, N. Y.

PER EGG CAPACITY
The Sure Hatch Incubator is a high grade machine throughout, (over 30,000 in use) anyone can operate them, and when it is considered that we pay the freight and that the machines are all larger than rated capacity and are sent on 30 days trial, the egg capacity is the cheapest of any good incubator on the market.
Our Free 1903 Catalogue was made to order for the poultry raisers—poultry and egg record tables, etc. A big book full of good things. Address nearest office.
SURE HATCH INCUBATOR COMPANY.
Columbus, Ohio. Clay Center, Nebr. Eugene, Ore.

SHOEMAKER'S BOOK ON POULTRY
and family almanac for 1903. Over 200 large pages of best book paper, with fine colored plates true to life. Tells how to raise chickens profitably, their care, diseases and remedies. Diagrams with full descriptions of Poultry houses. All about INCUBATORS, BROODERS, Thoroughbred FOWLS, with lowest prices. You cannot afford to be without it. Only 15 cts.
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Does Your Poultry Pay?
If it does not, the fault is likely yours. Learn all about the business. There is no excuse for failure, you may acquire a complete poultry education at odd moments in your own home.
WE TEACH POULTRY CULTURE
by mail. No experiment but an assured success. Over 50 of America's most successful poultrymen are engaged by us to teach you. Write for prospectus at once. Gives complete course and names of faculty. A postal card will do.
American Poultry Institute, Dept. F-10, Rochester, N. Y.

30 Days Free Trial
The Royal Incubator
is so good and works so well that we don't ask you to buy it before you try it. Entirely automatic: certain in results. May we send you one on trial? Catalogue free.
ROYAL INCUBATOR COMPANY,
Dep. 61, Des Moines, Ia.

The PRAIRIE STATES KEEP AT THE HEAD. More made—more sold—more prizes won than ALL OTHERS combined.
342 FIRST PRIZES WON
Send for catalogue—just out—finest ever issued. Mention this paper.
PRAIRIE STATE INCUBATOR Co.
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$12.80 For 200 Egg INCUBATOR
Perfect in construction and action. Hatches every fertile egg. Write for catalog to-day.
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FREE FOR 30 DAYS.
We will send our grand new book "HOW TO MAKE MONEY WITH POULTRY AND INCUBATORS" free, postpaid, for the next 30 days to all who mention this paper in writing for it. It's the best we ever published. 8x11 ins. 196 pages. Handsome original illustrations. 12 special chapters on vital poultry subjects. Write to our nearest office for it.
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Buffalo, N. Y., Chicago, Ill., Boston, Mass., New York, N. Y.
Self Supplied Moisture

FENCE! STRONGEST MADE. Bull-strong. Chicken-tight. Sold to the Farmer at Wholesale Prices. Fully Warranted. Catalog Free.
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200 EGG INCUBATOR $8
By our new plan you can secure our NEW IDEA INCUBATOR at nominal cost. Double Walls, Removable Trays, Nursery, Copper Heater, Improved Tank, Safety Lamp, Regulator. We Can Save You Money. Write for FREE Circular. Address
NEW IDEA INCUBATOR, Box 118 QUINCY, ILL.

THE CROWN Bone Cutter
for cutting *green bones*. For the poultryman. Best in the world. *Lowest in price*. Send for circular and testimonials. Wilson Bros., EASTON, PA.

$20 A WEEK straight salary and expenses to men with rig to introduce our Poultry Mixture in country; year's contract; weekly pay. Address, with stamp, Monarch Mfg. Co., Box 1113, Springfield, Ill.

All varieties Prize Poultry, Pigeons, Hares, Collies. 20 Eggs $1. *Catalog free.* J. D. Souder, Telford, Pa.

Poultry-Raising

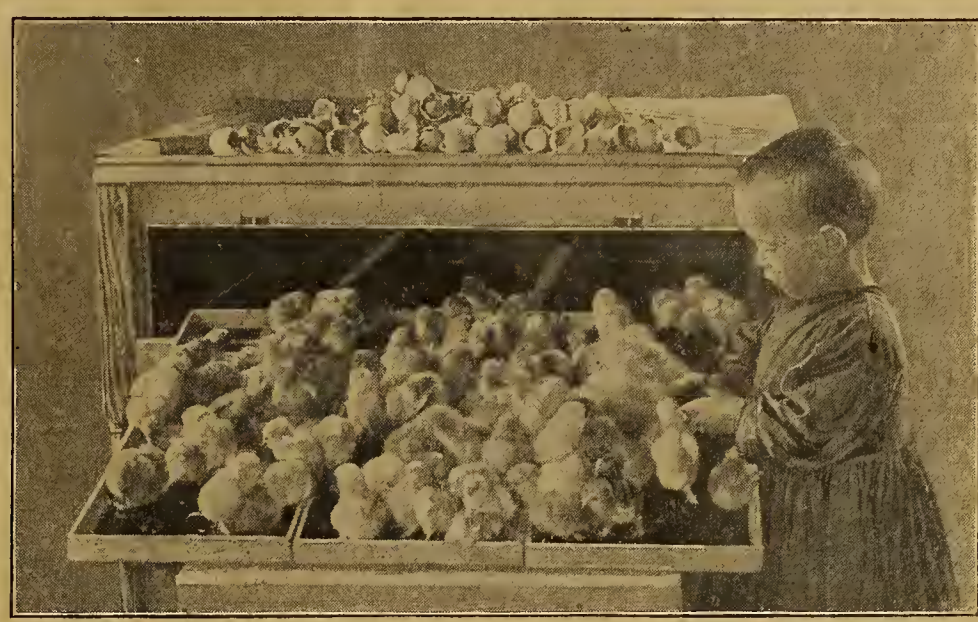
By P. H. JACOBS

HATCHING GOSLINGS

Do not hatch goslings too early. If you wish to raise them, keep them off the ponds until well feathered, as the down is no protection, and the cold water chills them. It is only late in the spring, when the weather is warm, that they can indulge on the pond. Feed them on corn-meal, animal-meal and ground oats, moistened, three times a day the first few days, and then only once a day, as they can easily find a portion of their food on the pasture if grass has commenced. If the weather should be cold they must be fed more frequently.

DUCKS SHOULD BE LAYING

Ducks should be laying regularly now. They will need a fair proportion of animal food, and should be fed soft messes altogether. Cooked potatoes or turnips thickened with equal parts of bran, corn-meal and animal-meal will be excellent. If liver or other cheap lean meat can be procured, it may be given every other day, and cut clover, chopped very fine and scalded, should be given two or three times a week. Keep the floor of the duck-house clean and well covered with straw or litter. Ducks lay more eggs than hens while at such work, and as they lay large eggs they require an abundance of food of a varied kind.



A TRAY FULL OF CHICKS

EGGS OF PURE BREEDS

Eggs set in March will hatch about the latter part of March or in April. It is time that those interested in pure breeds began to supply themselves. Is it cheaper to buy fowls or eggs? Fowls are not so easily procured in the spring as in the fall, but it is possible that a trio of fowls will give better results in proportion to cost than to purchase eggs, for the reason that two hundred or more eggs may be secured from the trio. One objection, however, is that all of the eggs will not be produced early in the year, but a sufficiency of eggs should be obtained from a trio to permit of hatching fifty chicks before April is gone, which will more than pay the first cost of the fowls, while at least one hundred late chicks may probably be obtained if the hens are excellent layers and the eggs give good results, leaving also the original hens at the end of the year for duty next season.

YOUNG TURKEYS

The best way to secure a good stock is to purchase two sittings of eggs from a reliable dealer as early as it can be done in the spring. These should be placed properly under common hens which are known to be good sitters. As soon as hatched, the mother hen should be confined in a rather close and well-sheltered pen, which will allow free egress and ingress to the young turkeys. They should be fed frequently and bountifully upon scraps from the table, especially stale bread moistened in fresh milk and mixed with finely chopped onions. To keep off lice, which are always fatal to young turkeys, the wing and covert feathers of the hens should be slightly oiled once a week with pure melted leaf-lard. After they are two weeks old the hen may be allowed to take her brood on the run on bright, warm days, and when they are a month old they can be given perfect freedom if the weather is not too inclement. They may then be given, in addition to their other food, plenty of cracked wheat, and will need but little further attention. Expensive poultry-houses are not desirable for turkeys, as they thrive much better if allowed to roost in open sheds as soon as they are weaned. Turkeys are excellent foragers, and the cost of their feed need not exceed fifty cents a year if the range is good. Though it is too early to hatch turkeys, the above should be retained for reference. April and May are best months for hatching.

INQUIRIES ANSWERED

Ground Bone.—C. P. J., Oakley, Wyo., wishes to know "how much ground bone to feed." The dry bone may be broadcasted over the poultry-run, where the fowls will help themselves to any quantity desired. There is no fixed quantity.

Plymouth Rocks.—W. M., Stuart, Iowa, desires to know if "the Buff Plymouth Rocks are as good all-round fowls as the Barred variety." They do not differ except in color.

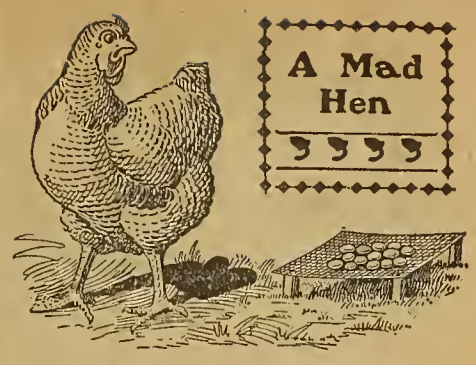
Beef-meal and Blood.—"Subscriber" asks "if beef-meal and dried blood should be fed to fowls and chicks, and in what quantities." Such foods are valuable for poultry, and may be given in any quantity desired, the rule being about one pound for sixteen hens. The dried blood is the more valuable.

Fowls on City Lot.—A. W., Berlin, Ont., requests "the recommendation of a breed on a city lot, eggs being the specialty. He is partial to the Houdans." In reply it may be stated that the Houdans are excellent, but any of the non-sitting breeds should serve the purpose satisfactorily, a great deal depending upon the management.

Distinguishing Geese.—E. H., Abraham, Utah, desires to be informed "regarding distinguishing the sex of geese." The gander has a somewhat fine, squeaky voice, while the voice of the female is loud, rough and coarse. The same rule applies to ducks. Catch the geese one at a time, and the difference in voice will be plainly apparent.

Hens Not Laying.—"Subscriber" states that "his flock of thirty-five hens never lay in winter." As the writer keeps the fowls on a small plot both summer and winter, and feeds almost entirely on grain, the failure is due to lack of exercise as well as insufficient variety of food. Grass, onion-tops, cooked turnips, scalded hay, etc., should be given, according to the season.

Turkeys.—Mrs. J. B. K., Glenville, Minn., desires to know "if turkeys will thrive on a field of ten or twelve acres as when allowed to roam, and what height of fence will be best." It will be found difficult to confine turkeys with a fence. A ten-acre lot is ample for an ordinary flock, and if the birds are given a light meal morning and night on the same location they will soon learn to come up regularly and will not stray far.



No one would think of setting a hen on an elevated screen wire tray. If they did the hen would soon convince them it was foolish. The Sure Hatch Incubator is not built that way either. It is built on the hen's nest principle, and the eggs are incubated in the natural way.
The Sure Hatch Incubator contains other up-to-date practical features, several improvements not found in other incubators. They have a direct acting automatic regulator that is something entirely new. Its construction and simplicity carries conviction to anyone.
The Sure Hatch Incubators are built of California redwood, have copper tanks, safety lamps and all fixtures of first quality. They are a high grade machine at a low price.
Look up the Sure Hatch Incubator advertisement and write them.
Mention this paper.

Counting Chicks Before Hatching
is not safe unless you have an
IOWA ROUND INCUBATOR
R. C. Bauerminster, Norwood, Minn., got 493 chicks from 503 eggs. He followed directions, the machine did the work, because it was built on right principles and by good workmen. The IOWA has fiber-board case, does not shrink, swell, warp or crack. Regulation and ventilation perfect. Our free book gives more testimonials and full particulars. Everything about incubation free.
IOWA INCUBATOR COMPANY, BOX 206, DES MOINES, IOWA

You Can Succeed
in the poultry business just as we have if you follow the same plans. We tell all about what we have done and how we did it, in our new year book,
"Poultry for Profit."
Gives cuts of every variety of fowl, together with prices for singles, pairs, trios and pens, and eggs for hatching, in season. Cuts and plans for poultry houses. It cost too much money and time to be given away, but is sent for 10 cents.
THE J. W. MILLER CO., Box 162 Freeport, Ill.

A Hundred Per Cent
is no uncommon hatch for Petaluma Incubators. They are the oldest and most reliable machines on the market. Results are uniform and always high. Redwood and copper materials. Devices purely automatic and sure. Write for free catalogue.
PETALUMA INCUBATOR CO.
Box 74, Petaluma, Cal. Box 74, Indianapolis, Ind.

VICTOR INCUBATORS
Hatch every fertile egg. Simplest, most durable, cheapest first-class hatcher. Money back if not positively as represented. *We pay freight.* Circular free; catalogue 5c.
Geo. Ertel Co., Quincy, Ill.

RELIABLE
is a word that stands for the best Incubators and Brooders in the world. Each has special distinguishing features. Send 10c postage for Book No. 19, just out, giving *guaranty of money back* if incubator is not satisfactory.
110 Yards Fine Poultry.
Reliable Incubator and Brooder Co., Box B 41 Quincy, Illinois.

NOW IS THE TIME
$5,000.00 Cash Given Away
Read how to win one of the great prizes. Full particulars on Page 25 of this issue of the Farm and Fireside.

INCUBATORS
From $6 up. Best reasonable priced hatchers on the market.
Brooders, $4 up. None better at any price. Fully warranted. Catalog free.
L. A. BANTA, LIGONIER, IND.

The Gem Incubators
and Brooders are sold at half the price of other makes, and are absolutely guaranteed to hatch every good egg or money back. 60 egg size $6.00. Brooders $4.00. Direct from factory to you. Write for catalog. It's free. J. W. Sauer, Box 19, Trotwood, O.

DON'T SET HENS the same old way while A 200 Egg Natural Hen Incubator Costs But $3, other sizes equally as low. Over 125,000 in use. Indispensable to anyone who keeps a hen. Our Patents protected against infringements. Agents wanted everywhere, either sex, no experience necessary. Catalogue telling all about and 25c Lice Formula FREE if you write today.
NATURAL HEN INCUBATOR CO., B62, Columbus, Nebraska.

POULTRYMEN
find their wants supplied. Incubators, Brooders, Fixtures. Write for catalog.
THE F. E. WEIR COMPANY, LIGONIER, IND.

SELF REGULATING AND AUTOMATIC MOISTURE | INCUBATORS AT CUT PRICES | 2 YEAR GUARANTEE
$4.49 & 50 EGG SIZE | $7.92 & 100 EGG SIZE | $11.19 & 200 EGG SIZE | WHY PAY MORE
INVINCIBLE HATCHER CO. | No. 28 CAT FREE ESTD. 1893 | SPRINGFIELD, OHIO.

EGGS FOR HATCHING Bar. Ply. Rocks, Black Minorcas, Bf. and White Leghorns, Langshans, Brahmas, W. Wyandottes, Houdans. Eggs as good as you pay $2 for or your money back. W. W. Shampanore, Box O, Little Silver, N. J.

DEATH to LICE on hens & chickens. 64-p. Book Free. D. J. Lambert, Box 303, Apponaug, R.I.

FLORAL BUTTERFLY PLANT

No plant possesses so many good points as do these two glorious new Commelinas. Of graceful trailing habit, superb for carpet bedding or for hanging pots. *In pots they bloom every day in the year.* In the garden from May until frost, showing *daily* scores of large winged butterfly-like blossoms. Color (No. 1) the most beautiful blue to be found in any flower. A shade so exquisitely lovely as to baffle description. Thrives in sun or shade, wet or dry, rich or poor soil; as easily raised as a weed from seed or cuttings, grows rapidly, flowers at once, and propagates so easily that plants are very cheap. Blooms in 50 days from seed.

No. 1—Exquisite Blue, like tropical Butterflies.

No. 2—Rosy Pink, in other respects like No. 1.

Strong plants for blooming at once, by mail guaranteed to grow, **20c** each; the **2** for **30c**, **5** for **60c**.

Seed of both colors mixed, 25 cts. per packet.

FREE OUR GREAT CATALOGUE of Flower and Vegetable Seeds, Bulbs, Plants and Rare New Fruits, Profusely Illustrated, Large Colored Plates—136 pages. Do not miss our great Novelties, Emperor Asparagus (crop in 11 months from seed), Early Lima, Perpetual Rhubarb, Pineapple Onion, Climbing Currant and Blackberry, Everblooming Wistaria, Tree, and Double Lilacs, etc. We have the finest Asters, Pansies, Peas, Stocks, Verbenas, Geraniums, Azaleas, Roses, Palms, Ferns, Begonias, Gloxinias, Violets, Phloxes, Gladiolus, Cannas, Dahlias, Lilies, Caladiums, Shrubs, Vines, New Fruits, and all Vegetables.

JOHN LEWIS CHILDS, Floral Park, N.Y.

WHEN YOU BUY EGGS YOU WANT GOOD EGGS
WHEN YOU BUY SEEDS YOU WANT GOOD SEEDS
Moral: PLANT OURS
WRITE FOR CATALOGUE·
NORTHRUP KING & CO.
SEEDSMEN
MINNEAPOLIS · · MINN.

The Maule Seed Book

for 1903 is free to all interested in gardening who mention this paper. If you want an up-to-date garden you ought to have it, the best seed catalogue I have ever published. The first edition costs over $37,000. Address simply

MAULE, Philadelphia.

FARM LANDS

NET $1,528.75 FROM ONE ACRE

one season, planting in rotation cauliflower, cucumbers, egg-plants, in beautiful, health-giving Manatee County. The most fertile section of the United States, where marvelous profits are being realized by farmers, truckers and fruit-growers. Thousands of acres open to free homestead entry. Handsomely illustrated descriptive booklets, with list of properties for sale or exchange in Virginia, the Carolinas, Georgia, Florida and Alabama, sent free.

JOHN W. WHITE
Seaboard Air Line Railway, PORTSMOUTH, VA.

GOOD SEEDS CHEAP
Best in the world
From 1c. a p'k'g, & up. A lot free with every order. Great Big Catalogue FREE to all. Picture of all varieties. Send for big catalogue
R.H.SHUMWAY
ROCKFORD, ILL.

BROME GRASS (hardiest known) **TIMOTHY** (finest in U. S.)

These two great leaders are worth attention of every Farmer and Dealer. My Brome Grass is wonderful in a dry country. My Timothy is simply unequaled in quality. Write to-day for prices, delivered at your town, and samples.

MANN, The Seedman, Portland, Oregon.

I will also send you, at the same time, free samples and prices of my Oregon-grown specialties: Orchard Grass, Tall Meadow Oat, Italian and English Rye, Speltz, Spring Vetches, Sand Vetches, Dwarf Essex Rape, Seed Potatoes, White Hulless Barley and Wasco Beardless Barley.

SEED CORN

Early Golden Surprise Field Corn a Specialty. Write at once for our free Annual Catalogue for 1903 on Garden Seeds, Small Fruits, Poultry, Chester White Hogs and Polled Angus Cattle.

SIMON BELL & SON, R. D. No. 3, Junction City, Ohio

Around the Fireside

THINKING OF YOU

What do I care for the frown of the skies,
If the roses are missing the dew?
I dream in the depths of your violet eyes—
I'm thinking of you!

What do I care for the burdens I bear;
For any dim future in view?
The light glimmers bright in the fall of the tear—
I'm thinking of you!

And life will have roses the round of the year,
And never a rose with the rue;
For in even the gloom of life's shadows, my dear,
I'm thinking of you!

—F. L. Stanton, in Atlanta Constitution.

THE HIGHEST MOUNTAIN IN NORTH AMERICA EXPLORED

MOUNT McKINLEY, ALASKA, VISITED BY UNITED STATES GEOLOGICAL SURVEY PARTY

MOUNT McKINLEY, the highest mountain in North America, was visited last season by Alfred H. Brooks and his party from the United States Geological Survey, with Mr. D. L. Reaburn as topographer. As far as known, this is the first time the slopes of the peak have been reached by white men, though in 1898 its altitude and moisture were determined from a distance by Robert Muldrow, of the same survey.

The mountain is located near the western margin of the Alaskan Range, the general name given to the large mountain mass which separates the Yukon and Kuskoquim waters from Cook Inlet drainage. It is a great dome-shaped mountain, formed of intrusive rock, towering to an elevation of over twenty thousand feet above sea-level. Though its summit reaches so high an altitude, almost four miles above tide, it probably is not as difficult of ascent as some other Alaskan mountains—for example Mount St. Elias—because of its relatively high snow-line. As the season was well advanced, as much of his itinerary had still to be carried out, and as it was no part of the original plan, Mr. Brooks did not attempt to pass the snow-line, though this point was reached. Now that the location and height of the mountain have been established by the exploration of the Geological Survey, travelers and individual explorers will doubtless soon attempt to reach the summit. In anticipation of these attempts, Mr. Brooks is preparing a description of the country, giving routes by which the mountain may be reached, and other information valuable to those interested in its ascent. His paper will appear in one of the leading geographic magazines. The more elaborate and extended report of the exploration will soon be published by the Geological Survey.

RIVERS NILE AND COLORADO

Prof. R. H. Forbes of the government agricultural station at Tucson, Ariz., makes the following comparison:

"The Colorado River is in many respects remarkably similar to the historic Nile. Like the Nile, it rises in a distant, mountainous country; its lower courses traverse a subtropical and nearly rainless desert; and both rivers empty into great land-locked arms of the ocean at a little less than thirty-two degrees north latitude. Like the Nile, the Colorado has for long distances along its lower courses created a narrow ribbon of fertile soil in the midst of the desert through which it flows, and has deposited a great alluvial delta between Yuma and the Gulf of California. The delta is chiefly Mexican territory. Like the great river of Egypt, the Colorado is subject to an annual summer rise sufficient to overflow great areas of its border and delta lands. These high waters are rich in fertilizing sediments, are exceptionally free from alkaline salts, and come at an opportune time for irrigation. When the Colorado floods are less than normal, the Yuma Indians fail of satisfactory crops, just as do the Egyptians with a low Nile.

"Although the climatic conditions in winter are slightly more severe in the Colorado delta than in that of the Nile, yet these two regions closely resemble each other agriculturally. Some common products are (or may be) alfalfa, wheat and grains of the sorghum class; the date-palm, fig, orange, olive and pomegranate; cotton, melons and sugar-cane.

"When the Colorado is understood and utilized as successfully as is the greater and better-known parallel, it will be recognized as the American Nile, the creator of a new country for the irrigator, and Mother of an Occidental Egypt."

HIGHEST-PRICED LAND

The highest-priced land in the world is that bounded by Wall and Broad Streets and Broadway, in lower New York City. A square foot of ground on a corner of Broadway and Wall Street cannot be had for less than four hundred and fifty dollars. The most expensive land in London sells for three hundred dollars a square foot. The average price of land in New York City's financial district is about one hundred and seventy-five dollars. Next in the scale comes the woman's shopping-district from Fourteenth to Twenty-third Street, on Sixth Avenue, and from Thirty-fourth Street to Forty-second Street on Broadway. Here land ranges all the way from sixty dollars to three hundred and fifty dollars a square foot. On the northwest corner of Broadway and Thirty-fourth Street the latter price was obtained. The real-estate man who can tell the future movements of population on Manhattan is in a position to realize a fortune. The growth of Brooklyn and Jersey City has checked the movement of the population north, and it is said the most valuable land on Manhattan Island will always remain south of Central Park. The lower half of the island will in a short time have nothing on it except office-buildings, factories and tenement-houses.—Success.

EVICTION OF A LARGE FAMILY

An eviction of a large family was an interesting incident on Walnut Street, in Brookline, recently. A large oak-tree had become rotten with age, and was cut down with considerable labor. In one of the hollow branches a squirrel family had established comfortable winter quarters, and their consternation was pathetic when the blows began to fall upon the base of the trunk. They raced back and forth in wild procession, jumping from tree to tree along the row and back again, as though fully conscious of what was going to happen. After the tree was felled, an investigation of the hollow revealed a prodigious and snugly constructed accumulation of cotton string, sawdust, leaves, bits of wool, wisps of hay, probably taken from a near-by barn, and a quantity of nuts and acorns. Later in the day, after the workmen had gone and all was quiet, these stores were diligently removed to another hollow tree, all the members of the family assisting in the removal. It was a curious and interesting sight, and was witnessed from several houses in the neighborhood.—Listener, in Boston Evening Transcript.

HONESTY PAYS

We have just read in one of our exchanges an account of a young lady who, by the death of relatives, was placed in very reduced circumstances, and compelled to enter a dry-goods store as saleswoman at the glove-counter.

Some very defective gloves were given to her to sell. She called the attention of the floor-manager. He told her it was her business to obey orders, and to sell whatever she was told.

She could not do it conscientiously, and though very much in need of her wages, told him she could not. He discharged her, and she was almost heart-broken. But the merchant who owned the store noticed her absence, heard the floor-manager's explanation, sent for the young lady, examined the gloves, sent them back to the manufacturer, thanked her in behalf of his firm, raised her wages, and assured her that she should never again be interfered with in the conscientious discharge of her duty.

We like to read such accounts, and wish American newspapers would publish more of them.—Our Dumb Animals.

CURIOUS FACTS

A recently invented device for attracting attention to store-windows, etc., is an automatic soap-bubble blower. The apparatus is provided with a little pump like a bicycle-pump, and a few strokes of this will furnish air enough to keep it blowing bubbles for half an hour.

The necessity of dust-particles as nuclei for the formation of raindrops and the smaller masses which form clouds has long been admitted. Professor Aitkin, who originally advanced this theory of rain and cloud formation, has now demonstrated that sunshine may convert peroxid of hydrogen, sulphureted hydrogen, or chlorine, in the higher air into nuclei.

Living organisms have resumed their functions after enduring the cold or liquid air for six months. It is suggested that the remarkable experiment should be continued for years or a generation, for our theories would be greatly modified by an indefinite retaining of vitality, and probability would be given Lord Kelvin's speculation that life may possibly have reached the earth from space.

Some of the giant Sequoias of southern California are estimated to be from five thousand to eight thousand years old, having perhaps spanned the entire period of written history. A section in the American Museum of Natural History was cut from one of these trees at a height of twenty feet, is a little more than eighteen feet in diameter, and its concentric rings show that it began its growth in 550 A.D., the tree reaching a diameter of thirteen feet at the time Columbus landed in America.

It has been known for some years that ants see in the ultra-violet rays a color unknown to human eyes, and it is suggested that the presence of this color, alone and in mixtures, doubtless transforms the whole aspect of Nature. Other animals perceive vibrations that do not affect our ears, thus hearing sounds and melodies to which we are deaf. It is in the sense of smell, however, that many creatures surpass us, and this sense, so strikingly developed in dogs and some other mammals, is the most extraordinary endowment of insects. A female gipsy-moth is known to attract males from a mile away. Males of other moths have found females at a distance of several miles, and when some females were inclosed in boxes in a glass building, the subtle odor—confined and masked by thousands of other odors—drew male moths from great distances in a short time.—The American Inventor.

THE PHILOSOPHY OF FELIX G. PRYME

Obscurity has its compensations; he who flies the highest sometimes falls the farthest.

You cannot, with much success, judge a man's character by the cost of his Panama hat.

Sometimes the loftiest monument towers above the grave of the poet who starved to death.

Much talk is no demonstration of ability; the noisiest automobile does not always win the race.

If the camera could photograph our thoughts, how would you like to have your picture taken? I am asking the question of "you," the man or woman who is reading this paragraph.—Success.

GEMS

An investment in knowledge pays the best interest.—Benjamin Franklin.

How much lies in laughter, the cipher key wherewith we decipher the whole man.—Thomas Carlyle.

Our grand business in life is not to see what lies dimly at a distance, but to do what lies clearly at hand.—Carlyle.

Sunday Reading

DON'T TAKE YOUR TROUBLES TO BED

You may labor your fill, friend of mine, if you will;
You may worry a bit if you must;
You may treat your affairs as a series of cares,
You may live on a scrap and a crust;
But when the day's done put it out of your head;
Don't take your troubles to bed.

You may batter your way through the thick of the fray,
You may sweat, you may swear, you may grunt;
You may be a jack-fool, if you must, but this rule
Should ever be kept at the front:
Don't fight with your pillow, but lay down your head,
And kick every worriment out of the bed.

That friend or that foe (which he is I don't know),
Whose name we have spoken as Death,
Hovers close to your side while you run or you ride,
And he envies the warmth of your breath;
But he turns him away, with a shake of his head,
When he finds that you don't take your troubles to bed.

—Edmond Vance Cooke, in The Saturday Evening Post.

A MANDARIN'S VIEW OF THE BIBLE

A story has been told of an English official from Peking who was asked if he had witnessed any effects of Christianity upon the high officials of the Chinese Empire. In reply the official said that he had once asked a high mandarin if he had ever read the Bible. The mandarin returned to his inner room, and brought back a book full of extracts from the New Testament, saying that he had copied from it the things which he most admired. Then, laying the book upon the table, he put his hand upon it, and said, "If only the people who profess this religion were to live in accordance with its precepts, this religion would spread all over the world."
—Missionary Herald.

"A MAN NAMED JOHN WESLEY"

In one of her lectures, Frances Willard told the story of a young nobleman who found himself in a little village, away off in Cornwall, where he had never been before. It was a hot day, and he was thirsty, and his thirst increased as he rode up and down the village streets seeking in vain for a place where something stronger than water could be had.

At last he stopped, and made impatient inquiry of an old peasant who was on his way home after a day of toil.

"How is it that I can't get a glass of liquor anywhere in this wretched village of yours?" he demanded, harshly.

The old man, recognizing his questioner as a man of rank, pulled off his cap, and bowed humbly; but nevertheless there was a proud flash in his faded eyes as he answered, quietly, "My lord, something over a hundred years ago a man named John Wesley came to these parts," and with that the old peasant walked on.

It would be interesting to know just what the nobleman thought as he pursued his thirsty way. But what a splendid testimony was this to the preaching of John Wesley! For more than a century the word that he had spoken for his Master had kept the curse of drunkenness out of that village; and who can estimate the influence for good thus exerted upon the lives of those sturdy peasants? What nobler memorial could be desired by any Christian minister?—Epworth Herald.

A DREADED TASK

A task never grows smaller or lighter by sitting down and lamenting that it must be done, and there is an old maxim that teaches us that a thing "once begun is half done."

A farmer friend of mine has a boy of fourteen years, named Billy, who is like a great many other boys of my acquaintance. His heart is heavy, and a cloud immediately overspreads his mental horizon when he is asked to make himself useful.

"Billy," said Mr. H. one day when I was at the farm, "why don't you go to work on that little patch of potatoes?"

"Aw," whined Billy, "there's so many o' them 'taters I'll never get 'em hoed."

"You won't if you don't begin soon."

"I hate to begin."

"How are you ever going to do the work if you don't begin?"

"Well, I'll begin pretty soon."

His father walked away, and I heard Billy exclaim, in a tone indicating great mental distress, "Plague on them old 'taters! It makes me sick to think 'bout 'em."

"Why do you think about them, then?" I said, laughing.

"I've got to," he replied, dolefully, with a sorrowful shake of the head. "I've been thinkin' 'bout 'em ever since I got up this mornin'."

"How long now, Billy, will it really take you to hoe them?"

"Well, at least an hour."

"And you've been up a little more than five hours?"

"Well, I—I—" Billy began to grin, took up his hoe, and said, "I never thought o' that!"

And the potatoes were hoed in just forty minutes.—Golden Days.

"OLD HICKORY'S" FAIRNESS

Andrew Jackson has two sorts of reputation. He is credited, on the one hand, with being the father of the spoils system; but, on the other hand, he is said to have been stanch and stubborn against wire-pulling. A story told in the Washington "Post" throws light on the best side of Jackson's character.

When Jackson was President, Major Gibbon, a New Jersey man, was postmaster at Richmond, Va. A delegation from Richmond waited on Jackson to demand the postmaster's place for a Democrat.

"Isn't Major Gibbon an old soldier of the Revolution?" asked Jackson.

"Well, yes."

"Any charges against his official character?"

"No-o; but he stumps up and down the streets of Richmond abusing you and your administration."

"Does he?" said Jackson, grimly.

"Yes; and, besides, he's an old-time Federalist."

"Well," said Jackson, seriously, "you call to-morrow morning and you shall have an answer."

When the delegation had withdrawn, Jackson sent promptly for the auditor of the Post-office Department.

"Mr. Auditor, what sort of an official is Major Gibbon, postmaster at Richmond?"

"A model postmaster, Mr. President."

"Any charges against his official integrity?"

"None whatever, sir. His accounts are scrupulously correct, and always rendered on time."

"That will do, Mr. Auditor. Good-morning!"

The next day the delegation called promptly, expecting to receive Major Gibbon's head.

"Gentlemen," said Jackson, "you admitted yesterday that no charge lies against Postmaster Gibbon's official character or conduct. This is verified by the accounting officer of the Treasury. But you dwelt on the fact that he villifies me and openly opposes my politics. For that you would have me turn adrift and penniless an elderly man—the man who led the forlorn hope at Stony Point, and left his right leg there.

"Such a man, gentlemen, has bought the right to entertain his opinions and speak them, and to abuse me as much as he pleases. While Andrew Jackson holds the White House, Major Gibbon shall not be disturbed in his little office. You have my answer. Good-morning!"
—Youth's Companion.

Have you something to do to-morrow? Do it to-day.—Benjamin Franklin.

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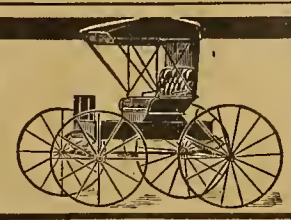

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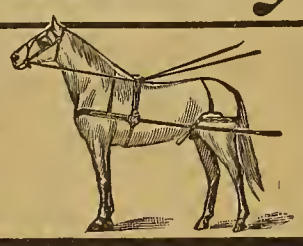

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The Housewife

THE ATMOSPHERE OF MOTHERHOOD

WILLIAM ELLERY CHANNING'S exquisite summing up of "My Symphony"—"to let the spiritual, unbidden and unconscious, grow up through the common"—takes on a deep and sweet significance when one reviews the phrase in its relation to the delicate task of character-building in the young child. In no other work is it so clearly demonstrated that the intangible and unexpressed are stronger forces and more compelling than are those of the material world or of the accepted "precept upon precept," for the atmosphere, the spiritual environment, begins its formative influence almost with life itself, and the mother need never expect to lead her child into a fuller and more beautiful inner life than she is able to exemplify in her own experience. The little one may in after-years outstrip her, and win the precious knowledge of the best and purest; but alas! some alien will point the way, and not the mother, for the life beautiful, like the mysteries of Holy Writ, are, as Ruskin says, "only to be understood through the medium of an act."

It is the crowning glory of motherhood that she may represent all that is lovely and good, not only to the infant smiling up at her from its nest in her arms, but to the growing child, the enthusiastic youth and the man who has attained the full stature of mind and body. It does not follow that she must be brilliant or beautiful, widely philanthropic or possessed of great executive ability. The one requisite is that her ideals be high, and her whole life a conscientious effort to live up to them. This is the secret of the strong hold which the mothers of our greatest men and women have retained over their children through all their lives. The cabins in the virgin forest, the dug-out on the prairies and the log school-house become but dim and shadowy memories, but that mother is never outgrown whose child has breathed with its breath of life the emanations of a pure, unselfish spirit and an absorbing love.

If another word about maternal influence were needed, it could be found in the fact that whenever a magnificent life comes into the public eye one instinctively looks for a splendid motherhood behind it. It is the sovereign sweetener, the divine corrective of all that might tend toward wrong in associations and surroundings, and surely it is worth any mother's while to plan and study diligently to use her power to its greatest advantage.

SLEEVE-ADORNMENT

The training of one's child must begin with one's self. One needs to cultivate some of the qualities most necessary to a great political leader—cunning, tact and diplomacy; but more than all, an unfailing patience and a love without dissimilation, a love so patent and so perfect that the child will instinctively realize, even before a discovery of himself as a sentient being, that all that is done for him is prompted by an unselfish desire for his own good. This is possible, and once wisely and thoroughly inspired, this confidence will insure the obedience which is indispensable.

For all their simplicity, children are wonderfully quick to recognize an impatient spirit or a selfish one, and always resent it, although they are sure to imitate it. They cannot understand how many cares—petty worries, physical weakness and a sense of general insufficiency to meet the demands upon her—are tapping the mother's nerves and draining her of her strength, but they insistently expect sweet words, loving smiles and instant attention to all their small wants. Now, it is almost impossible for an overtaxed woman to maintain an amiable exterior, so in all her planning the mother must contrive to save her own strength as much as possible. She must early learn to discriminate between real and imperative duties, and the inclinations which masquerade as duties—the things which convention or an evanescent whim of fad or fashion would impose—and she must carry her convictions down even into the very small matters of which life is so largely composed.

Some years hence neither she nor her child will be the wiser nor the happier for the extra tucks and frills on its dress, nor for the table-cover which she sat embroidering to the accompaniment of babyish grumbling; but the moment of mother-play, the pretty story retold, the pleasant ramble together or the visit to a neighbor in the spirit of love are all outward signs of the hidden principle which will convey to the little one the very soul of that royal motto, "Ich dien."

DRESS-YOKE

Her own ideals, her tones, her speech, and even the expressions of her face, will surely be reflected in the plastic nature which is hers to mold. Just in this connection comes to my mind the desire of so many women to earn a little pocket-money in one way or another, but usually at the expense of vital force and precious time, which they can ill afford to spare from their household and community obligations. If they could only understand how much better it would be for them to be content with very little, and only be thankful that they have food to eat and clothes to put on, and that there is no real necessity for them to aid in the bread-winning!

The task divinely assigned to mothers is as much as a woman ought to undertake who has small children, and almost any other interest will conflict in these first important years with what she owes to them. If in no other way, the strain on her mind will be detrimental to good temper and good health, those two great factors in happy home-making.

The old idea that discipline is never perfect so long as the child's will is unconquered is gradually losing its hold. It is the mother's province to skilfully direct, not to subjugate, since the latter would inevitably mean a certain effacement of the child's individuality. It is by cunningly and carefully keeping this force within proper channels that the ever-to-be-dreaded clashes of authority and wilfulness are to be avoided. There is always some secret spring in the tender soul which when touched will open the mystery of child-life to her who is studying it with love's clear vision. A review of her own nature and that of the father will help her to understand the little compound of the two and promote the patience with which she must meet unlovely tendencies as they arise. Heredity is no longer dreaded as it once was, since forewarned is forearmed, and we have learned that not diseases nor propensities, but tendencies only, pass from one generation to the other.

That children should be seen and not heard is another ancient fallacy which still has a grain of truth in it. There is what mothers know as the "silly" age, when children are apt to feel personally responsible for every pause in a conversation, and may very properly be encouraged to a becoming quiet; but otherwise they are entitled to respectful hearing, and certainly to sensible answers to their questions. I think that a great deal that is said and written about the respect due their elders need never be expressed if children were to receive the reverence and respect which is unquestionably theirs by all right. There is no reason why an offense against delicacy should be more easily condoned if against a child than an adult, and yet it is no unusual thing. Delicacy of speech, of touch and of implied discernment or motive take such quick hold of the child's comprehension, and are so promptly appropriated in his own conduct, that parents need never be mortified by boorishness if they will set causes right.

All the components of that ineffable quality that we call good breeding form an indispensable part of education which must be absorbed from the atmosphere which surrounds the child if they are really to be inwrought with the fibers of his being. Line upon line and precept upon precept may enforce a sullen compliance with the usages of good society, but unless reinforced by practical demonstration the spirit of true politeness is not there—it is only a veneer which will rub off quickly and show the coarse grain beneath when the friction of life's rough edges is brought to bear upon it.

Beautiful mothers make beautiful homes, however simple may be their setting, and beautiful homes make beautiful the young lives they shelter for a while, and then send out into the great world.

How can we wear our crowns so lightly, we mothers? How can we squander time and strength upon non-essentials,

COLLAR-FRONT

when the very making of the nation's future is in our hands?

To place our ideals high, to seek each day to draw a little nearer to their light, to be easily made glad and as easily to forget annoyances, to love God and our neighbor with that love which service fosters—these are our rights, our duties, our privileges, and after all, our sweetest joy. SUSIE BOUCHELLE WIGHT.

DRESS-TRIMMING

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The Housewife

JUST AN OLD HAT-FRAME

It was a white hat-frame, made of silk-covered wire, with a high steeple crown and a narrow brim. Maidie laughed when she saw it, and wondered how any one could have worn such a thing. Then she began to grow thoughtful. She slipped the joints from their fastenings, and slipped the wires down a little all around, a little more in front than behind. She straightened the brim, and bent the crown out all around about the middle, making it flat on top. Behold the frame of a "short-backed sailor with a Tam crown!"

The old velvet blouse just rescued from the missionary-box, where it would have met only with scorn, furnished some beautiful panne velvet when it was properly dampened and ironed, and several days of patient, careful work produced a handsome velvet hat in the prevailing style.

When springtime came, the velvet was carefully ripped off and laid away, some chiffon was purchased, the frame was slipped down still further from the crown, thus broadening the brim, the edge was bent in a pleasing shape, and after some evenings spent in tucking the chiffon with dainty stitches, another fashionable and becoming hat had been evolved from the old hat-frame.

When winter came again, the chiffon was removed with all possible care. The brim was left broad, but was turned up slightly all around the edge. The frame was then covered with white eider-down flannel of light weight, the edge finished with swan's-down, and a large chou of white taffeta made a white hat that was the admiration of all the girls (and of at least one boy).

This summer the hat will be bent in another shape, lined and faced with the white taffeta that trimmed it last winter, and the crown and top of the brim draped with Battenberg lace made with black silk braid and gold thread. It will be the most "fetching" thing in the neighborhood.

"But," you ask, "why does Maidie spend so much time and trouble rebending an old frame, when a new one of just the shape desired would cost so little?"

You see, she begged so hard for an opportunity to take lessons in millinery, and her father objected so seriously to her absence from home, that she was at last obliged to pledge herself to make all her own hats from frames "now on hand" and a limited allowance for trimmings for four years, and so far the experiment has proved satisfactory. VELMA V. BEEBE.

HAIR-PIN RECEIVER

The material required for this is half an ounce of white and half an ounce of any preferred color of Shetland floss. With a coarse bone needle crochet the floss

HAIR-PIN RECEIVER

into chains until it is all used, then wind it around a card eight inches wide, and tie through the middle with a white taffeta ribbon in a large bow, having the loops stand up. W. D. M.

THE ANT FARMER

There is a queer family of ants in Texas, and they certainly belong to the agriculturist class. I believe there are no other animals in the world that could rightly be called farmers, but these ants certainly can.

These little ants are very particular as to the manner of preparing the ground for their crops. They make circular clearings some ten feet in diameter, sometimes in wild pasture, at other times in the middle of some thrifty, energetic farmer's field. One ant, and that the female, appears to clear the "ant farm" all by herself. And when we consider her size we see that her labors are truly great. With her teeth she will cut through stems as thick as a thumb. She will bite and saw and twist and pull until she has cleared away everything, and then she keeps everything away until her "ant corn" has ripened. This "corn" is a kind of yellowish grass, which grows very tall, and Mrs. Ant will not allow so much as one blade of any other kind to grow with it. This grass, or "ant corn," as it is called, ripens the latter part of June, when the ant cuts the seed from the stalk and carefully stores it.

HAIR-RECEIVER

Although these ants live on their own "corn," still the farmers do not feel at all friendly toward them, because they inflict much injury to the fields by destroying many an acre of grain by their presence. They look upon the wheat and oats and rye, the potatoes and cabbage and corn, as just so much useless produce that they must get rid of before their field is ready to be cultivated. They will even strip a tree of leaves if they think these same leaves keep off too much sunshine from their circular grass-plot. The farmer may endeavor to drive them away, but they always refuse to move. I suppose they think they have as much right to the land as he has.

ELLA BARTLETT SIMMONS.

WORK-BAG

A WORK-BAG

This small bag for carrying small work to a thimble-party or to spend an afternoon with a friend is made of bright flowered cretonne. The ends of the bag are round. The side should come over in a point, and fasten with a button and a loop. It will hold knitting nicely if made the length of the needles. W. D. M.

HAIR-RECEIVER

This useful article is made of two colors of celluloid, which comes at forty-eight cents a sheet. One sheet will just make one hair-receiver, but the celluloid can be bought in half sheets, so as to get the two colors. It is perforated along the edge with a shoe-punch, so as to allow it to be laced up with ribbons. It is pretty when made of cream-white celluloid for the outside, and pink or blue for the inside. The material is pliant and easily cut with scissors, and the shape need not be confined to the one we have illustrated; it can be varied according to individual taste. The color and decoration can always follow the scheme of color in the other toilet decorations. This hair-receiver could be an accompaniment of the hair-pin receiver and a dainty pincushion to match, as a gift of any kind especially welcome to one just beginning housekeeping. W. D. M.

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Josephine

Winning a Cold Sweetheart and a Sunny Home

By FRANK H. SWEET

CHAPTER VI.

A PLAN THAT FAILED

THAT afternoon found Spencer the owner of thirteen acres, and he at once set men to clearing it. The next day he took Mabel Carruthers up to Pitt's Island to consult about the location of pictures. Josephine declined to accompany them. Such frivolity as hers would be a handicap on their discourse, she said. Instead, she went with Clarence Hawkes for an hour's sail.

During the next week the hotel saw little of Spencer. Much of his time was spent on Pitt's Island with his sketching outfit, and every day he went to Pineapple Place to show the work he had done and to plan more. Josephine had knowledge of it all from a distance, and nodded her head sagely. It was the most harmonious thing she had ever heard of, she thought; and it was all coming out so beautifully—just as she had planned. Spencer was glowing in his description of Mabel during the occasional moments that they happened to be together. She was so intelligent, so quick and brilliant at repartee, so well read and ambitious, so beautiful, and yet through it all, so sweet and womanly. Josephine listened with shining eyes and tremulous lips, agreeing to everything, but assuring him, as she had done before, that he did not half know Mabel. There were more beautiful qualities for him to discover than he had yet seen. The beauty outside was but a faint indication of what was in her brain and heart. And most afternoons, while Spencer was sketching at Pitt's Island, she went across to Pineapple Place for a confidential talk with Mabel. There, also, everything was properly harmonious and considerate of her plans. Mabel talked freely, and yet with what Josephine thought a certain self-conscious shyness, of Spencer and his work. He was all that was gentle and manly, delicate and yet strong, gay, sincere and earnestly ambitious. That argued well, for Mabel was not given to talking of young men. She was too much absorbed in her work. Perhaps it was her enthusiasm for that kind of work which made her like Spencer; but even in such a case, it argued well. It was an easy and natural transition from the work to the worker. Not infrequently she found Mabel absent, busy about something or gone for a walk, and once on the lake with a friend. At such times Josephine remained with Aunt Helen; and Aunt Helen, too, liked the artist, and was fond of talking about him and his work. So there was not a single flaw or hitch in the whole beautiful arrangement, and Josephine felt that she ought to be perfectly happy over its smooth unfolding. But somehow she was not. During the week she often grew impatient with herself. There were plenty of amusements going on around, and young people were constantly asking her to join them or were ready on the slightest invitation to go with her, and yet she eluded them for solitary walks along the paths or an empty bench in the cocoanut grove, where she could muse and plan over this beautiful scheme of hers. Why, she was growing morbid on the subject, she began to tell herself, irritably. Spencer and Mabel were both persons of intelligence and discernment, and were both quick in discovering the good qualities of each other. Why could she not let matters take their course, now that the course was smooth and open? Mornings usually found her at the golf-links with Clarence Hawkes. Clarence was a good player—a good all-round man in everything, his friends said, and Josephine agreed with them. She liked him immensely. But Clarence had a good many friends, and friends took up time. He owned a yacht, and over on the other side, where there were roads, he had an automobile, and somewhere in the neighborhood—though he rarely used them—were a pair of horses. During the afternoons lately she had seen little of him. Once, while on her way to Pineapple Place, she met him swinging down the lake-path, his eyes clear and straightforward, and his fine, good-natured face flushed from exercise and with a ready smile of friendliness for every one he met. She liked the picture of the strong, broad-shouldered fellow as he paused for a moment's conversation, smiling down at her, with his cap in his hand. Besides his other accomplishments, Clarence was a good pedestrian and fond of taking long walks.

At length the illustrations were finished and admired, and then sent off with the manuscript. Spencer declared he should take a two days' holiday before commencing on another order, to recompense him for the week's steady work. In the evening he danced with Josephine, and early the next morning he went in search of her again, through the parlors and rotunda, and finally out to the hotel-grounds.

He found her in the cocoanut grove, with a book, but not reading, and he dropped contentedly upon the bench beside her. "All day long with you now, Josephine," he said, happily. "Let me see. We might go out on the lake for an hour's sail, then over to the beach for the bathing. After lunch we can take wheel-chairs to the rubber-tree, then go out on the pier and watch the fishermen, or perhaps sit for an hour on the Breaker's veranda and look at the sea and talk—yes, that will be best," smiling down at her, "we will find some unoccupied corner of the veranda where we can talk. If you wish, we can come back here to the grove for the afternoon concert. In the evening, I understand there is to be a cake-walk in the grove by the hotel waiters. We can go and see the moon rise over the water after dinner, then come back to the cake-walk, and later go into the ball-room. Don't you like the program, Josephine?"

She did not answer at once, and there was an odd look of content in her eyes. Then she roused herself. "Yes, it is nice, and I like it immensely," she answered; "but you will find it impossible to carry out, Spencer. After lunch you would begin to grow distrait and your thoughts to wander across the lake. No, no; I won't be selfish, even though I've been deprived of your society for a whole week. And then there is Mabel. You've been over there a lot lately. Now let me remodel your program a little, and make it absolutely perfect. After lunch I will take a nap, and then come out here with a book, or perhaps go over to the golf-links with Clarence Hawkes. You, of course, are to disappear. In the evening you are to have it arranged for Mabel to come over to the cake-walk, and then go into the ball-room with us. We will make up a nice little party. I will speak to Clarence Hawkes, for I want him to meet Mabel, anyway. After the dancing you can take her home in a launch—or perhaps we will all go along. It will be nice on the lake by moonlight. There," she concluded, smilingly, "isn't that as near perfect as one can plan?"

"Far, far from it," he replied promptly; "indeed, it is a mere parody on the program I submitted. We will carry that one out as arranged. After lunch, the wheel-chairs and the rest. But I have some news for you, Josephine. Clarence Hawkes and I had a long talk after the dancing last night. We went down to the dock for a smoke, and one thing led to another, and at last we grew quite confidential. I always liked the fellow, but the talk down there let me into a side of his character that I had never realized before. Not many men of his money have ambitions such as he disclosed to me. He is worthy of any woman's love, Josephine."

He took possession of one of her hands

"Is that meant for me?" she asked, but without raising her eyes this time. "Are you trying to point out as happy a future for me as you have found?"

"Why, yes, something like that, I believe—that I have found, but not quite attained to yet. But seriously, Josephine, your ambition for me doesn't still include Pineapple Place?"

"Of course," flashed Josephine, indignantly; "aren't you exactly made for each other?"

Spencer's face became grave. "Josephine," he asked, "do you honestly want me to marry Mabel Carruthers?"

"Why, to be—"

"Straight from the heart, dear. Remember, I love you, and always shall. A man's love doesn't change so easily. Look right at me—no, raise your eyes, dear. Now tell—"

"I thought you had some news for me," she broke in, hastily and irrelevantly. "What was it you found out last night?"

He smiled down at her indulgently. "Something about Clarence and Mabel, dear," he answered. "It seems that they met at Tarrytown last summer. It was only during the past few days that he learned of her being in this neighborhood, and he has been making pretty good use of his time since then. Yesterday they became engaged."

"Spencer!" She was on her feet now, staring at him incredulously. "You don't mean that Clarence Hawkes and Mabel Carruthers are engaged, and I not have even the faintest suspicion that they had ever met each other?"

"Precisely. Absurd, isn't it? Now about ourselves." He drew her down beside him, and took possession of one of her hands. "Clarence tells me that they are to be married in the spring and go North on a wedding-trip. Don't you think, dear, that it would be nice for you and I to go at the same time and in the same way?"

Josephine gasped a little, and tried to look indignant, but failed. Protestingly her gaze fell before his. "I—I—Spencer—oh, dear! it's perfectly ridiculous!" she said. But she did not withdraw her hand.

THE END

ROMAN GIRL'S SONG

Rome, Rome! thou art no more
As thou hast been!
On thy seven hills of yore
Thou satst a queen.

Thou hadst thy triumphs then—
Purpling the street,
Leaders and sceptered men
Bowed at thy feet.

They that thy mantle wore
As gods were seen—
Rome, Rome! thou art no more
As thou hast been!

Rome! thine imperial brow
Never shall rise;
What hast thou left thee now?
Thou hast thy skies!

Blue, deeply blue, they are,
Gloriously bright;
Veiling thy wastes afar
With colored light.

Thou hast the sunset's glow,
Rome, for thy dower,
Flushing tall cypress-bough,
Temple and tower!

And all sweet sounds are thine,
Lovely to hear,
While night, o'er tomb and shrine,
Rests darkly clear.

Many a solemn hymn,
By starlight sung,
Sweeps through the arches dim
Thy wrecks among.

Many a flute's low swell
On thy soft air
Lingers, and loves to dwell
With summer there.

Thou hast the South's rich gift
Of sudden song—
A charmed fountain, swift,
Joyous and strong.

Thou hast fair forms that move
With queenly tread;
Thou hast proud fanes above
Thy mighty dead.

Yet wears thy Tiber's shore
A mournful mien—
Rome, Rome! thou art no more
As thou hast been!

—Felicia Hemans.

THE LAST KISS

BY J. MERVIN HULL

ESTHER PUTNAM stood in the entry of her pretty cottage while the cool October twilight deepened, and it seemed to her that the dark and chilling shadows were gathering around her own young life.

"I suppose I ought to tell you the truth, Esther," Doctor Burton had said. "Your sister may live for many years, but probably she will never walk again." Then the kind old man had gone away, and left her there alone with her sorrow.

What did this mean for Lucy, for herself, and—for Jasper Stone?

She clasped her hands tightly together, and her throat was parched as by a burning fever. She lifted her tearless eyes to the stars as if to question them; but the stars that she had always thought so soft and beautiful had no answer in their cold and heartless glitter.

She heard the sound of merry voices. Some girls were coming along the village street, and as they drew near the cottage she could hear what they were saying.

"What do you suppose Jasper Stone will do? Will he keep his engagement with Esther Putnam, now that Lucy has got to be a cripple all her life?"

"I don't believe he will. Think what a burden it will be for him, never free from an invalid. Young men don't like such things. There was Austin Jones and Mary Clark, you know—" The voices trailed off into the darkness, and silence reigned again.

Ah, yes! Esther knew the whole shameful story. Would Jasper desert her like that, without a word of explanation? No, never! But—should she allow him to sacrifice himself for her?

Just then the factory-bell gave a few lingering strokes, the signal that the day's work at the mill was over. Esther started suddenly, and turned to enter the house. Jasper was foreman in the weave-room, and she knew that he would come to see her during the evening. Last night she would have flushed with joy at the thought, but now she knew in the darkness that her cheeks were white and her hands were cold. She went into the sitting-room, where Lucy reclined upon a sofa, propped up by many pillows, and tenderly cared for her. Then she went to her own room.

For an hour she knelt in silence, and when she arose she had made a renunciation as complete as that of the novice before she pronounces the irrevocable vows. Nothing could change that. So she thought it right to put on for this last meeting the blue dress which Jasper said was the most becoming to her, and to wear her hair the way he liked it best.

"Maxwelton's braes are bonnie—"

Oh, why should Jasper come up the street softly singing "Annie Laurie" of all tunes? How his clear tenor voice thrilled her heart! But there was no help for it—she must go down to meet him.

Jasper Stone seemed to fill the little parlor with his presence, he was so big, so strong, so full of vitality. His face beamed like the sun when he saw how Esther had dressed to please him, and his heart sang a song of joy as he thought of the happy future that opened before him.

Then Esther, not daring to trust herself to wait any longer, told him the whole story. Lucy was to be an almost helpless cripple; there was no one to care for her but herself, and she would never leave her sister. But she would never place such a burden upon Jasper's shoulders. Their engagement must be broken, and they must not meet as lovers after to-night.

Jasper listened like a man in a dream. A thousand thoughts, and some doubts, flashed through his mind. He could not speak for a moment, and into the silence came a thin, sweet voice from the sitting-room.

"Oh, Esther, I'm so tired! I can't stay here any longer."

"I must go to Lucy," said Esther, starting up. "The doctor was here a long time to-day, and she is very tired, and I must help her up the stairs."

"What!" exclaimed Jasper, "is it so bad as that? Let me help her."

As Jasper bent over Lucy the gentle smile had come back to his lips again. He put his big arms underneath the girl's twisted form, lifted her and carried her up the stairs like a child, and laid her upon her own bed. Lucy clung to his arm, and pressed her cheek against it.

"Oh, how strong you are!" she sighed. "It makes me feel better just to be near you. How thankful I am that Esther will have you to lean upon—of course, she has told you what the doctor said. And I will try so hard not to be a burden."

Jasper did not answer Lucy. Esther met him at the top of the stairs, and said, "I think we had better say good-night here, Jasper. It will take me some time to make Lucy comfortable for the night."

"I—I think I will wait until you come down," stammered Jasper.

In the little sitting-room he waited. He could not sit down, but walked to and fro across the room. At last Esther came down. How lovely she looked as she stood for a moment in the doorway!

Jasper turned to meet her. His hands were shut so closely that the nails cut into the flesh, but his voice was low and steady as he said, "Esther, I want to ask you only this: Have you told me the whole truth? Are you sending me away simply from a sense of duty? Esther, do you love me still as you have told me so many times?"

She raised her clear eyes to him, and as he looked into their depths he knew his answer before she spoke.

"Jasper," she said, "I love you to-night better than I ever did before, but I—"

"Then, Esther," and there was a new ring in his voice, "I think you might give me one kiss for memory's sake."

She hesitated a moment, then put her hands upon his shoulders, and lifted her sweet lips to his. Then she broke away from his embrace, frightened at what her own heart had felt.

"Jasper," she said, earnestly, "do not make me suffer. This must be the last."

Perhaps so, but he did not act as if he accepted it as a final verdict. A complete change came over him. He looked like a strong man, rejoicing to run a race, who sees the prize already within his reach. He heaped the fire with fresh wood, then brought an easy-chair and placed it before the cheerful blaze.

"There, Esther," he said; "sit right down before the fire, and rest yourself. You have had a trying day. No, don't sit up like that, but rest your head against the back of the chair, so. Here's a hassock for your feet. Do be comfortable for once. Why, how cold your hands are! I'll hold them till they get warm. No, it isn't any use to try to draw them away; they are just lost in my big paws. There, are you comfortable now?"

"But, Jasper," Esther began.

"I wouldn't try to talk," said Jasper, soothingly. "It is hard work to talk when any one is all tired out, as you are. And besides, I have so much that I want to say that I don't see how there will be much chance for you, anyway. I will tell you at once that I don't accept your dismissal. You have confessed that your love for me is unchanged, and that settles everything."

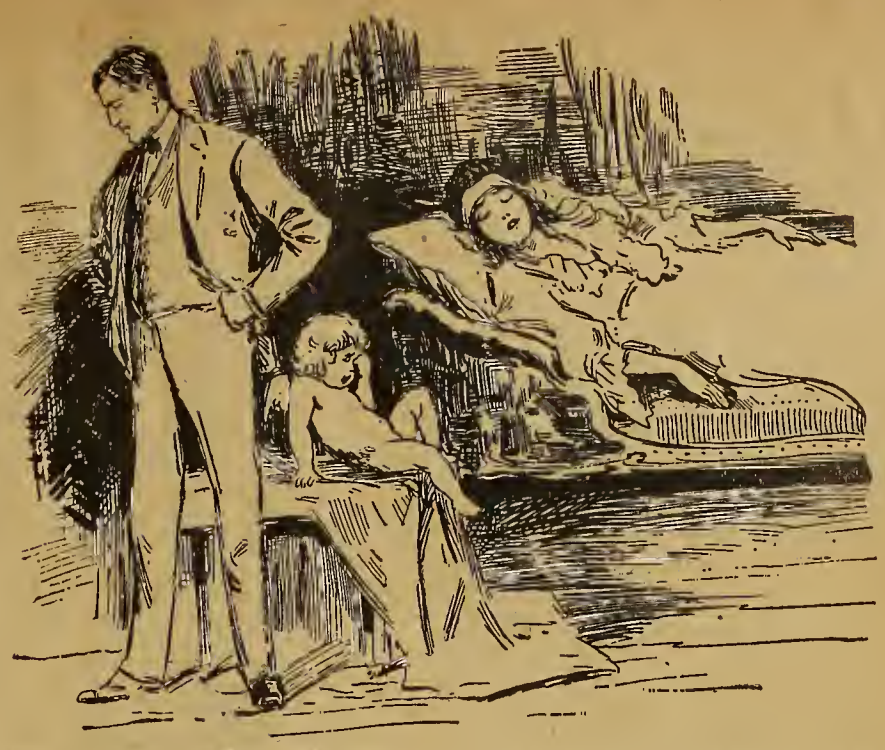
Esther tried to keep the door of her heart shut, but she couldn't. Joy, peace, hope, love, happiness—all came trooping in and had everything their own way.

"We have been engaged for three years," Jasper went on. "Two years I waited because your mother was ill, though I wanted to help you care for her during her last days. But now I am going to take charge of things. Why, Esther, if I should give you up because of this new trial I should be the most worthless, despicable, mean, contemptible creature on earth. But never mind that. Esther, we will be married next week."

"No, no, Jasper! You must not talk to me this way!" But it was Esther's lips, not her heart, that spoke.

"Lean back in the chair again, dear," said Jasper, gently. "You can't rest sitting up like that. Three years is long enough for any engagement, and I am getting a good salary as foreman in the weave-room. I plainly see that I am needed here. Lucy needs me, if you do not. I'll tell you what I have planned to do. Lucy cannot go up and down stairs, and so I am going to have a little room built out from this one. It will be sunny, and have a fine view from the west. And I am going to have some windows that open low, so that we can roll her wheel-chair—I am going to get her one—right out onto the lawn. What do you think of that? Oh, well, if I have made you cry, it is time for me to start for home. But I shall come again to-morrow evening, and bring Sargent, the carpenter, with me to take the measurements for Lucy's room. And by the way, considering all things, I think I ought to have one more last kiss."

And Jasper got it.



WHEN ILLNESS COMES, LOVE DIES

Mrs. Ella Wheeler Wilcox says there comes a time in the course of married love when "the thrill goes out of the handclasp and the kiss at times, and it is then that husband and wife may be susceptible to other magnetic personalities." The reason for this condition of affairs is often the fault of the husband, but how often is it not due to the wife's nervousness and irritability, due to some trouble with the organs peculiarly feminine—the wife under such circumstances feels languid and spiritless—she suffers perhaps from headache and sleeplessness. When the love which united husband and wife loses its magnetic quality, and the wife is constantly finding fault—jealous and worn out with household cares and little worries—she feels irritable, and the husband loses his interest and fondness for the family fireside, more than likely romance has fled at the touch of illness. The home may be jangled and out of tune for years when the trouble could be corrected easily and at once. Isn't there disappointment and misery enough in the average household without this added burden of the sick and nervous wife? In more than 99% of such cases the trouble can be corrected, and love, which should hold two beings in

THE BONDS OF MATRIMONY,

returns with the same old thrill, and the wife coaxes back the delicate color and freshness to her cheeks—the cheerful disposition and the sweetness and charm of married love come back to her home even after the romance is gone. Dr. R. V. Pierce, chief consulting physician to the Invalids' Hotel and Surgical Institute, of Buffalo, N. Y., has solved this problem. For years he made a study of the diseases of women, their proper diagnosis and cure. He finally evolved a prescription which was so successful in the cure of diseases of women that he now *offers $500 reward* for women who cannot be cured.

Backed up by over a third of a century of remarkable and uniform cures, a record such as no other remedy for the diseases and weaknesses peculiar to women ever attained, the proprietors of Dr. Pierce's Favorite Prescription now feel fully warranted in offering to pay $500 in legal money of the United States for any case of Leucorrhea, Female Weakness, Prolapsus or Falling of Womb which they cannot cure. All they ask is a fair and reasonable trial of their means of cure.

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"Favorite Prescription" has the testimony of thousands of women to its complete cure of womanly diseases. Do not accept an unknown substitute in its place.

"I am convinced that you have a valuable woman's remedy in your 'Favorite Prescription,' and cannot say enough in its praise," writes Mrs. Maggie Davis (Supervisor of Loyal Lady Lodges of Ontario), of St. Thomas, Ont. (Box 542). "It carried me through the change of life safely, a condition which I dreaded for years. The use of your 'Favorite Prescription' put an end to the headaches and dizziness which I had experienced off and on for years. I think every woman should know of the benefits derived from its use, as it would save much pain and suffering."

"A year ago I suffered everything from female weakness, bearing-down sensations, headache, backache, palpitation of heart and general weakness," writes Mrs. W. Ackmann, of Bartlett, Ill. "Was constipated, and had severe bloating in bowels. I commenced to take Dr. Pierce's Favorite Prescription and 'Golden Medical Discovery,' also his 'Pleasant Pellets' and 'Lotion Tablets,' and am now in good health again. I think Dr. Pierce's medicine the best in the world for women. I recommend it to all who are similarly afflicted."

"During my two years of married life I have not had good health," writes Mrs. Daisy Studdard, of 608 South Esplanade Ave., Leavenworth, Kan. "I was all run down, and my husband got me to write to Dr. Pierce and explain my case to him and see if he could do me any good. So I wrote, and, thank the Lord, I got an early reply telling me what the trouble was. I commenced taking Dr. Pierce's Favorite Prescription, also the 'Pleasant Pellets,' and now can say that I feel like a new woman, and can say also that we have a big baby four months old. When the baby came it was just wonderful how I got along, and now do all my work and do not feel tired out like I used to. I have taken eight bottles of the 'Favorite Prescription.' It makes one feel well and strong."

"I have found Dr. Pierce's Favorite Prescription of inestimable value," writes Mrs. Ellen Alma Bryan (Treasurer Memphis Century Club), of 193 Vance Street, Memphis, Tenn., "as a tonic for overwrought nerves, or when one is troubled with general lassitude and an irritable condition, hardly knowing what the trouble is. I was advised to use it by a member of our Club, and the effect on me was truly wonderful. Within two weeks I was like a new woman. I could eat and sleep as I have not been able to for months, my nerves became strong, and the mental equilibrium was restored as well as the physical. Your medicine has my highest endorsement."

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How to Dress

SUMMER FROCK

Among the novelties of the season none is more popular than tablecloth damask. The very pretty frock illustrated shows the material in a small pattern and with trimming of antique lace; the design, however, suits all the season's fabrics equally well. The waist is plain, with the new broad box-plait and slight fullness in each front, and includes the new sleeves that are full at the cuffs. The skirt is gored, and trimmed with a gathered flounce.

MISSES' SPRING SUIT

Cheviots and homespuns woven in plaids that are suggested rather than aggressive are among the features of the

SHIRT-WAIST SUIT

spring season, and make ideal costumes for young girls. The stylish model illustrated is of the homespun in shades of tan and brown, and is finished with tailor-stitching and a band of plain cloth at the head of the flounce. The blouse is peculiarly attractive, and includes the new and fashionable shoulder-capes. It can be worn with revers, as shown, or buttoned over in double-breasted style.

LADIES' SPRING COSTUME

The skirt is cut in three pieces, and is lengthened by a circular flounce, which provides graceful flare at the feet.

WALKING-SUIT

Blouse costumes are to be greatly in vogue for spring wear. The smart model illustrated is shown in summer-weight broadcloth in a soft shade of bluet, and is trimmed with touches of black panne and black silk drop-ornaments. The blouse is one of the latest, and includes the strap collar, with flat, circular capes and full sleeves, but can be made plain, as shown in the small sketch. The skirt is circular, and is tucked in groups.

LADIES' SPRING COSTUME

Costumes made of summer-weight, smooth-finished cloth will be greatly worn during the spring, and are exceedingly handsome. The stylish model illustrated is in a soft shade of gray, with collar of velvet, and finished with tailor-stitching. The blouse includes the fashionable slot-seams, and is held in place by handsome cut-steel buttons. The skirt is circular, with a habit-back, and is finished with a wide tuck at the lower edge, beneath which the flounce is attached. The flounce is in two portions, which are joined under the central tuck, and so provide additional flare.

SHIRT-WAIST SUIT

Shirt-waist gowns of simple silks are among the most notable features of advance styles, and nothing is more popular for their making than small shepherd checks. The very stylish suit illustrated is made of louisine silk in black and white, and is trimmed with pipings of black and large oxidized buttons; but taffeta and all similar silks, as well as simple wools and washable fabrics, are equally appropriate. The waist is plain, with the new broad box-plait, and sleeves that are full at the wrists. The skirt is cut in nine gores, with a habit-back, and flares fashionably at the lower portion.

LATEST MATERIALS

For the summer tailor suit, coarse linens, canvas and loosely woven cloths are to be used, most of them being embroidered on the material. A very pretty advance model of this sort is of marine-blue cloth; the corsage blouses above the waist-line and is cut in points up to the front, which are embroidered all around the edges. The wide collar is also heavily embroidered. The pagoda sleeves are cut out in embroidered points, which fall over undersleeves of blue mousseline-de-soie. A big knot of the same material

SUMMER FROCK

is tied about the collar. The skirt is trimmed to the knee with flat ruffles, which are also pointed and embroidered about the edges.—McCall's Magazine.

FASHIONABLE MATERIALS

There is no doubt that voile and colienne, which is a softer, silkier make of voile, are favorite materials for spring wear, though the hard hop sacks and canvasses are having a great run of popularity with the tailors, while curious mixed tweeds and cloths and black-and-white snowflake effects are still in fashion. A most useful material, which is also smart, is alpaca, and this is being produced in a variety of ways. A fine silky alpaca is delightful for the very hot weather, but the real hard-wearing fabric which always looks smart is of a coarser grain. There are some new stripes and tiny pin-spots in white on a dark ground which are very effective.—McCall's Magazine.

Any of these patterns sent from this office for ten cents each.

Misses' Spring Suit.—Blouse Jacket No. 4357. In sizes for misses 12, 14 and 16 years of age. Three-piece Skirt No.

WALKING-SUIT

4355. In sizes for misses 12, 14 and 16 years of age.

Ladies' Spring Costume.—Blouse Jacket No. 4277. In sizes 32, 34, 36, 38 and 40 inches bust measures. Circular Skirt with Circular Flounce Portions Attached in Tuck Style No. 4358. In sizes 22, 24, 26, 28 and 30 inches waist measures.

Shirt-waist Suit.—Shirt-waist No. 4349. In sizes 32, 34, 36, 38, 40, 42 and 44 inches bust measures. Nine-gored Skirt

MISSES' SPRING SUIT

No. 4361. In sizes 22, 24, 26, 28 and 30 inches waist measures.

Walking-suit.—Blouse Jacket No. 4364. In sizes 32, 34, 36, 38 and 40 inches bust measures. Tucked Skirt No. 4352. In sizes 22, 24, 26, 28 and 30 inches waist measures.

Summer Frock.—Shirt-waist No. 4362. In sizes for misses 12, 14 and 16 years of age. Five-gored Skirt No. 4103. In sizes for misses 12, 14 and 16 years of age.

Miscellany

RELIGION

Creeds change,
All outward forms
Recast themselves.
Sacred groves, temples and churches
Rise, and rot, and fall.
Races and nations
And the various tongues of men
Come and go, and are
Recorded, numbered,
And forgotten in the repetition
And the drift
Of many ages.
All outward circumstances
May be different,
But there lives no man—
Nor ever lived one—
Who, in the silence of his heart,
Feeling his need,
Has not cried out,
Shaping some prayer
To the unchanging God.
—Paul Kester, in McClure's.

THE WAY OF THINGS

A BOY lay tossing on a narrow bed in a great hospital. Nurses hurried to and fro, and here and there a moan told their story of life in its other raiments. A nurse in passing would touch his fevered brow with a cool hand, and shaking her head, hurry on to the next white bed—pitying, but accustomed. The Boy was going to die; the doctor had said so, and the Boy had heard him. He was young. No one ever thought twenty-two a suitable age to die, he knew, but if they had said so, why, of course—anyway, he was too sick to care much.

He was thinking of all the things he might have done when the Girl came. She had brought him flowers to place beside his bed, and her bright young face and presence turned his thoughts to what he might do if he could live. She told him of his friends, of her pleasures and her little worries and cares, and his pale, wan face lightened and relaxed, and for the moment he forgot. She told him that he looked better; but he only smiled. And when she rose to go, she bent over and kissed him. Before the Boy could speak she had gone. Her talk and her visit gave him strength and hope, and from that time on he wanted to live. He knew that she loved him, for she had never changed since that night on the sandy shores of a restless sea when she had told him so, with no one to hear but the moon and the breaking waves. He had played at love while the warm days lasted, but when the fall-time came he knew he didn't care.

For three long weeks Death hovered over him. The Girl came every day, and sat for hours beside his bed, hoping and wishing and listening to his delirious words. She never heard her name as he mumbled of his past, but she never wearied, and her visits never ceased. She, too, was young and a Girl, but she had never read of Love. One day the doctor said that he was out of danger. She came as often as before, and the Boy was happy watching her glowing face and pretty smiles. And when he was convalescent they took long walks and talked of themselves, of their pleasures and their past; and when a distant uncle came to take the Boy away, he knew that he loved her, and he wondered then if she loved him.

Before he went he told her, and her answer was a look and a confession, and the Boy went away happy and full of hope. He was to settle in the distant West, where his uncle lived, and when he had succeeded he was to write to her and she was to come to him. When he had gone she realized what it all was—this love of a woman—and she spent her days in longing and her nights in dreaming, while her friends criticized and scolded; but she heard, and cared not.

The Boy grew strong and brown, and every day was but the dawn of one more gone before she should be with him always. So the months went on. The Boy went out into the world and faced Life.

But one day in the drear of autumn, when the summer had gone and colorful leaves lay rotting in the pathways, a letter came to her telling of his wedding—to the sweetest girl in all the world, it said.

And she showed it to her husband, and was glad.—Beach Clark, in Metropolitan.

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(Illustration from the New People's Atlas of the World)

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"I could not breathe naturally through the nostrils for months together, and much of the time I suffered from catarrh of the stomach. Finally my hearing began to fail, and I realized something must be done.

"I tried inhalers and sprays and salves, which gave me temporary relief, and my physician advised me to spray or douche with Peroxide of Hydrogen; but the catarrh would speedily return in a few days, and I became thoroughly discouraged.

"I had always been prejudiced against patent medicine, but as everything else had failed I felt justified in at least making a trial.

"Our good old family physician, Dr. Ramsdell, laughed at me a little, but said if I was determined to try patent medicines, he would advise me to begin with Stuart's Catarrh Tablets, because he knew what they contained and he had heard of several remarkable cures resulting from their use, and futhermore that they were perfectly safe, containing no cocaine or opiates.

"The next day I bought a fifty-cent box at a drug-store, carried it in my pocket, and four or five times a day I would take a tablet. In less than a week I felt a marked improvement, which continued, until at this time I am entirely free from any trace of catarrh.

"My head is clear, my throat free from irritation, my hearing is as good as it ever was, and I feel that I cannot say enough in praise of Stuart's Catarrh Tablets."

These tablets contain extract of Eucalyptus bark, bloodroot and other valuable antiseptics combined in pleasant tablet form, and it is safe to say that Stuart's Catarrh Tablets are far superior in convenience, safety and effectiveness to the antiquated treatment by inhalers, sprays and douches.

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The Young People

THE HAND THAT USED TO SPANK MY PA

When I go down to grandma's, where
There's always lots of cake and pie,
I spread my bread with jelly there,
And stuff up till I nearly die!
The greatest fun you ever saw
Is sliding from their steep-roofed shed,
And the hand that used to spank my pa
Is the hand that pats me on the head.

I tear around, and yell, and make
All kinds of noise, and they don't mind;
They have no baby there to wake,
And both of them are awful kind.
The goodest man I ever saw
Is grandpa, with his hair all gray,
And the hand that used to spank my pa
Sews up my trousers every day.

—S. E. Kiser, in Chicago Record-Herald.

A HALF-HOUR WITH PUZZLES

PUZZLES are an education as well as an amusement, and with a judicious selection of games and books should form a strong bulwark for every family circle. In this half-hour of puzzles I give examples and brief explanations of some of the more popular forms in use.

REBUSES

A rebus is an enigmatical representation of a name or thing made by using pictorial devices for letters, syllables or parts of words. Devices of this kind were very common in the Middle Ages, particularly in allusion to names. In Westminster Abbey, Abbot Islip's chapel gives two forms of his rebus—one a human eye and a small branch or slip of a tree, the other a man in the act of falling from a tree, and exclaiming, "I slip!" The monogram of Ludger von Ring was the letter "L" inserted into a ring; the coat of arms of Lockhart was a lock and a heart; of Salmon, three salmons, and of Skene, three skenes, or dirks. The rebus is still a very popular form of puzzle.

Take four initials from the winds,
And if you place them true
You'll find what journalists esteem,
And search the world for you.

Answer—N-E-W-S. News.

RIDDLES

Riddles are a kind of conundrum, a puzzling presentation of an unmentioned subject, the design of which is to excite the reader or hearer to the discovery of the meaning hidden under a studied obscurity of expression.

I'm nothing till beheaded,
And indeed 'tis very strange
That I'm anything whatever
After such a cruel change.

Answer—Naught; beheaded, aught.

Formed long ago, yet made to-day,
I'm most employed while others sleep;
What none would like to give away,
Yet no one likes to keep.

Answer—A bed.

My first makes company, my second shuns company, my third assembles company, my whole puzzles company.

Answer—Co-nun-drums.

CHARADES

The charade is usually founded upon a word, each syllable of which has a meaning different from that of the word as a whole, as

My "first" is a crowd, either silent or loud,
My "second" a measure of land;
My "whole," says my verse, than a battle is worse,
Which the dullest can understand.

Answer—Mass-acre.

Priscilla sits within my "first,"
My "second" makes her broad-brimmed straw,
Which keeps my "third" from off her face—
Her face without a flaw.

Answer—Pew, rye, tan—Puritan.

ANAGRAMS

Anagrams are formed by the transposition of the letters of words or sentences so as to produce a word or sentence of widely different meaning. Every letter in the word or phrase must be used once, none twice. They are somewhat difficult to discover, but are exceedingly striking and appropriate in a great many instances. The following are a few good examples: Midshipman, mind his map; William Shakespeare, we all make his praise; old England, golden land; astronomers, no more stars; catalogues, got as a clue; breakfast, fat bakers.

ACROSTICS

Acrostics are usually in verse, and the first or the last letters of the lines, in their order, or certain words, one in each line, form a name or sentence, as: Not all clear, boiling up, coming from a volcano, sufficient, too much, part of a house, a musical phrase, a church district, a liquor. The initials read downward and the finals read upward will give two wonderful inventions which are in constant use.

Answer—"Telegraph" and "Shorthand," thus:

SISTER IS CALLING THE CHILDREN. CAN YOU FIND HER?

T urbi D
E bullitio N
L av A
E noug H
G lu T
R afte R
A llegr O
P aris H
H olland S

CONUNDRUMS

The conundrum is one of the most popular forms of amusement for the social circle. The answer to this style of riddle generally contains a pun, as may be seen in the following:

What piece of money doubles its value by deducting its half?

Answer—Half-penny.

Why was Dickens a greater man than Shakespeare?

Answer—Because Shakespeare wrote well, but Dickens wrote Weller.

ENIGMAS

Enigmas are the most ancient forms of riddles, and mean to hint at a thing darkly. They are based upon ideas rather than words, and so constructed as to mislead, and to surprise when the solution is made known. Thus:

The beginning of eternity,
The end of time and space,
The beginning of every end,
And the end of every place

Answer—The letter "e."

I partake alike in your joy and sorrow, and your home would not be home without me.

Answer—The letter "o."

SQUARE, STAR AND OTHER WORD-PUZZLES

The square, diamond, star and parallelogram are all variations of word-puzzles, and are constructed on the same principle, the difference being that the words form in each case the figure designated by the name assigned, as:

1. The first garden; 2. a gentle bird; 3. eternity; 4. a cruel tyrant. This is a square form, and the words must read the same across and down the lines.

Answer—

E D E N
D O V E
E V E R
N E R O

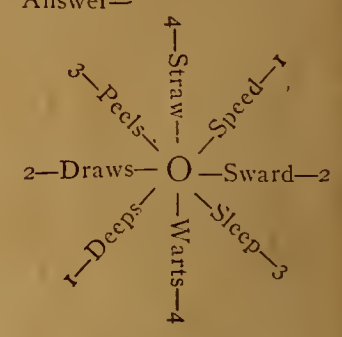
1. A consonant; 2. a kind of bedstead; 3. an early friend of the Indians; 4. a girl's name; 5. stories; 6. pet name for a sister; 7. a vowel. This forms a diamond. The central letters, down and across, spell a girl's name.

Answer—

R
c O t
c a S as
R O S A L I E
t a L es
s I s
E

1. Not easily fathomed; returning, to move with celerity. 2. Attracts; backward, the grassy surface of land. 3. The coating of fruits; then, a client of Morpheus. 4. Stalks of grain; again, excrescences of the skin. The whole to form a star, and from point to point, through the center, to read the same backward and forward.

Answer—



PALINDROME

Palindrome is a word, sentence or verse that is the same when read backward or forward. The word is Greek, and means "running back again." The following is an example:

You must find out a word that will silence proclaim,
Which, backward or forward, will yet read the same;
And next you must search for a feminine name,
Which, backward or forward, will still be the same;
And then for an act or writing, whose fame
Spelt backward or forward will still be the same;
Next think of a fruit that from Mexico came,
That, backward or forward, alike is its name.
These initials connected a title will frame,
Which is justly the due of the fair married dame,
And which, backward or forward, will still be the same.

Answer—Mum, Anna, deed, anana, madam, the initials to which make "madam." S.

A LESSON IN ETIQUETTE

When six-year-old Howard was dining at his aunt's he asked his mother to excuse him, upon which his three-year-old brother said, "You thould athk the lady that thith by the teapot."—The Little Chronicle.

Miscellany

BURNS

A POET'S EPITAPH

Stop, mortal! Here thy brother lies—
  The poet of the poor.
His books were rivers, woods and skies,
  The meadow and the moor;
His teachers were the torn heart's wail,
  The tyrant and the slave,
The street, the factory, the jail,
  The palace—and the grave!
Sin met thy brother everywhere!
  And is thy brother blamed?
From passion, danger, doubt and care
  He no exemption claimed.
The meanest thing, earth's feeblest worm,
  He feared to scorn or hate;
But, honoring in a peasant's form
  The equal of the great,
He blessed the steward, whose wealth makes
  The poor man's little more;
Yet loathed the haughty wretch that takes
  From plundered labor's store.
A hand to do, a head to plan,
  A heart to feel and dare—
Tell man's worst foes, here lies the man
  Who drew them as they are.

—Ebenezer Elliott.

"WEATHER-SHOOTING"

"WEATHER-SHOOTING" has assumed such importance in southern Europe that not less than three international congresses to consider it have been held. The latest report shows that experts are mostly convinced that gun-firing is useless for influencing rain or hail, although experiments are urged until the possible effects are understood.—The American Inventor.

JAPANESE EGGS

This dish not only takes the place of meat, but also of vegetables. Put six eggs in warm water, bring to the boiling-point, and cook slowly for fifteen minutes. Boil one cupful of carefully washed rice, and dry in the oven. Shell, and cut the eggs into halves crosswise, take out the yolks, and mash with them two sardines; add one tablespoonful of melted butter, one half teaspoonful of salt and one saltspoonful of pepper; roll into small balls, and put them back into the whites. Turn the rice in the center of a platter, and smooth it over. Stand the eggs in the rice, and pour over one half pint of carefully made, seasoned white sauce. Garnish with greens, and send to the table.

THE PROBLEM OF CIVILIZATION

When will the articles of need peculiar to modern civilization—coal, petroleum, wheat for fine flour, wood, iron, tin, and so on—give out? Iron, we are told, will never cease, because it will be extracted by processes now undergoing development from the sands of the sea, even if the mines become exhausted. That is a comfort, for iron is apparently the basis of our civilization. As to coal—there will some time be an end of that in Britain and America, though not probably in the lifetime of any one now living. And here, at this moment, comes an American consular report telling how a Norwegian company has tapped the immense coal-deposits of Spitzbergen under the arctic circle. And China has enough coal in her unopened mines to supply the furnaces of the world for centuries. There is no end to the coal-supply; our mechanical civilization will not fail for want of that. As to petroleum, no year goes by without the discovery of new wells somewhere. Mexico is the latest country to report new finds; they are having something like a Texas boom at Tampico and Monterey. The wheat-fields grow weary, but they are not exhausted by any means, and need never be. Wood grows scarcer and dearer; yet in proportion as it does so we find practicable substitutes for it. In this country we have lately had an experience which is a warning of the woe that would fall upon the world if there were no more good coal to be had, but the famine has not been due to any trouble with the coal, but with the labor that produces it. That suggests that civilization's problem—the rock that may shatter it—will not be a question of commodities, but a question of labor, of men; not a material, but a moral, difficulty.—Harper's Weekly.

BRICKLAYERS' TROWELS

MODERN CHANGES IN THEM

"The bricklayer's trowel," said a dealer in such things, "might have seemed long ago to have reached its final perfected shape, never to change again; but as a matter of fact, in the past dozen years it has been altered considerably in its proportions, the better to adapt it to modern conditions.

"The old-style trowel was used for laying bricks with mortar; but now bricks are laid more commonly with cement, which is used in a far more nearly fluid state than was mortar, and the old-style trowel wouldn't take up enough of it. So masons were continually calling for a wider trowel, and in answer to this demand the trowel has gradually been widened, until now it is an inch or more wider than it formerly was. It is also made nowadays a little shorter than formerly.

"And of trowels in general there are now more styles than there formerly were, due to the greater complication of modern construction and the greater need of trowels for special uses.

"While the bricklayer's trowel, shorter and wider, as I have described it to you, is now the standard hereabouts, bricklayers throughout the country do not everywhere use the same kind. Thus, while we use here a trowel of a certain form and dimensions, they use in California a trowel with a bigger and thinner blade than that of ours; there they don't cut and trim bricks with the edge of the trowel, but use a chisel that is made for the purpose. But then, men in different parts of the country have different methods in bricklaying practice, as well as different tools.

"A New York mason, for instance, will spread his mortar or cement along, and lay three or four bricks at once, while a Boston mason lays bricks singly. I don't know that one method is any faster than the other."—New York Sun.

A WONDERFUL ART

"Suppose a picture to be printed," says "The Great Round World" in an article on "Pictorial Photography," "is a farmer driving a flock of sheep down a dusty road in the late afternoon. At the time when the picture was taken there was a glorious sky filled with great pink-tinted, cumulous clouds piled up like snow-banks. The trees on the right were bold silhouettes. The warm sunlight glinted from the backs of the sheep in merry high lights which had tempted the artist to try his camera even though the light was almost too weak.

"Before him is the first faint image of the old peasant, with his bent shoulders, stick under arm, and hands in pockets. The sheep come up on the platinum paper very faintly, and the silhouetted trees promise to be nothing more than birch specters. Taking his brush, the artist dips it into the developer (retarded with the glycerine), and begins on his sky, which is absolutely white, not a sign of a pinkish cloud—the sky affects a plate much more quickly than the landscape. He carelessly daubs the developer over the entire white mass until faint outlines of the clouds begin to come up; then he works more carefully. The impressions of the picture as he saw it grow more vivid as the shadows multiply. That done, he begins on the sheep, endeavoring to make those high lights sparkle, just as they did in the real sunlight. He darkens up his trees against the bright sky, blotting out whatever details—even though they be true—mar the picture as he conceives it. If the developer works too fast, he paints the picture over with pure glycerine, which immediately stops all chemical action. Thus the photograph artist works and watches. His is no longer the work of an imitator. He must know all that the painter in oils knows about composition, tones, colors, drawing, light and shade, and with his own mediums he creates effects just as original as can be got with canvas, brushes and paints. Truth in art is a watchword; in this the photograph artist whose sketch is made with the exactness of the laws of light adds precision to inspiration."

First-Grade Silverware

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The base of this ware is **SOLID NICKEL-SILVER,** which is white all the way through, and positively will not change color nor rust, and

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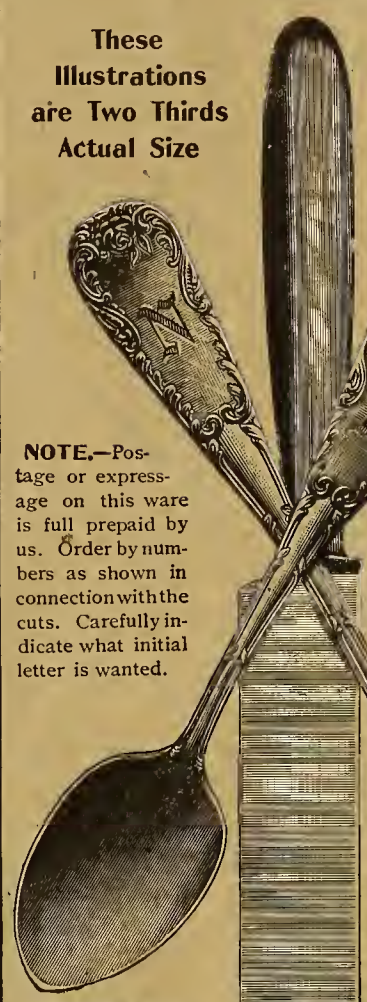
Full Size The ware is all full size, the illustrations on this page being just two thirds actual size.

Knives The base of the table-knives is fine steel highly polished. This is first plated with nickel-silver and then with twelve pennyweights of pure coin-silver. Ask your dealer what twelve-pennyweight knives are worth.

Initial Letter Each piece of this ware (except the knives) engraved free of charge with an initial letter in Old English. Only one letter on a piece.

Guarantee We absolutely guarantee every piece of this ware to be exactly as it is described and to give full and entire satisfaction or your money cheerfully and promptly refunded.

NOTE.—Postage or expressage on this ware is full prepaid by us. Order by numbers as shown in connection with the cuts. Carefully indicate what initial letter is wanted.



TEASPOON—NO. 14

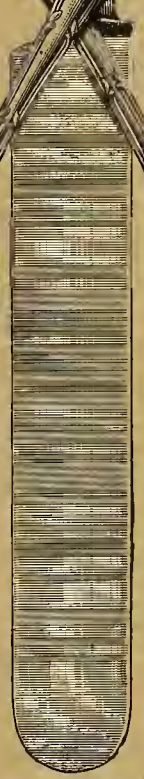


TABLE-KNIFE—NO. 29

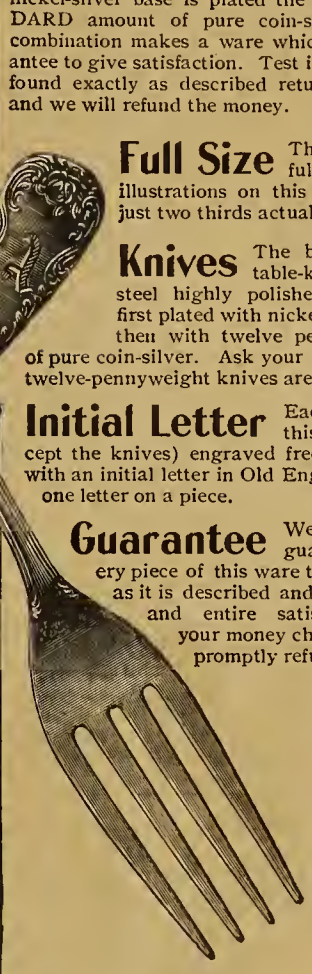
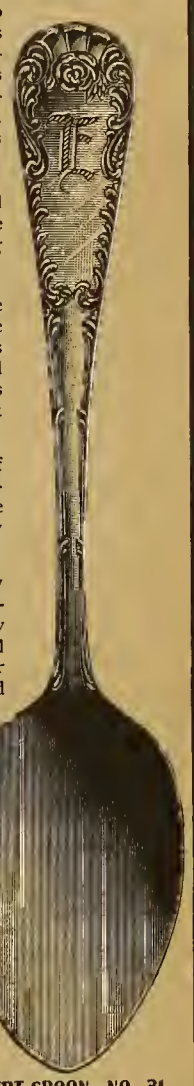


TABLE-FORK—NO. 25

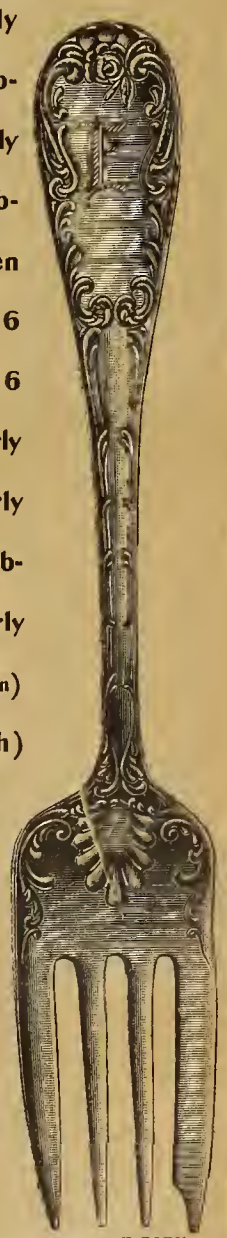


DESSERT-SPOON—NO. 31

TABLESPOON—NO. 16

Silverware Given for Securing Yearly Subscriptions to the Farm and Fireside

- Set of 6 Teaspoons given for 3 yearly subscriptions.
- Set of 6 Forks given for 6 yearly subscriptions.
- Set of 6 Tablespoons given for 6 yearly subscriptions.
- Set of 6 Knives given for 12 yearly subscriptions.
- Set of 6 After-Dinner Coffee-Spoons given for 3 yearly subscriptions.
- Set of 6 Dessert-Spoons given for 6 yearly subscriptions.
- Set of 6 Dessert-Forks given for 6 yearly subscriptions.
- One Cold-Meat Fork given for 3 yearly subscriptions.
- One Berry-Spoon given for 3 yearly subscriptions.
- One Pie-Knife given for 3 yearly subscriptions.
- One Gravy-Ladle given for 3 yearly subscriptions.
- One Child's Set (Knife, Fork and Spoon) given for 3 yearly subscriptions.
- Sugar-Shell and Butter-Knife (both) given for 3 yearly subscriptions.



COLD-MEAT FORK—NO. 59

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and a Set of 6 Teaspoons for	$ .75
and a Set of 6 Forks for	1.25
and a Set of 6 Tablespoons for	1.25
and a Set of 6 Knives for	1.75
and a Set of 6 Coffee-Spoons for	.75
and a Set of 6 Dessert-Spoons for	1.00
and a Set of 6 Dessert-Forks for	1.00
and a Cold-Meat Fork for	.75
and Berry-Spoon for	.75
and Pie-Knife for	.75
and Gravy-Ladle for	.75
and Child's Set (Knife, Fork and Spoon)	.75
and Butter-Knife and Sugar-Shell (both)	.60

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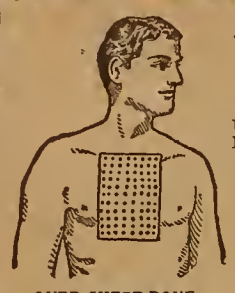

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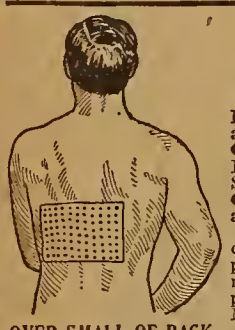

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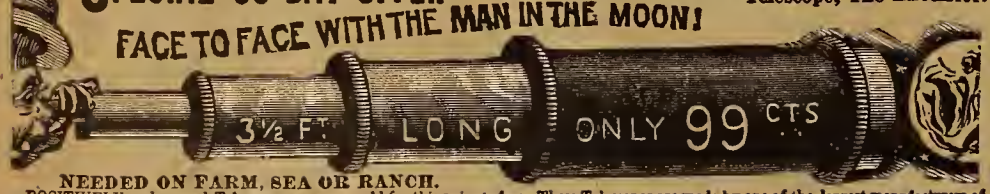

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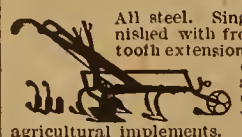

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The Family Lawyer

By JUDGE WM. M. ROCKEL

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INHERITANCE

E. H. F., California, makes inquiries as follows: "A. marries a woman with a small ranch, and they improve it until the improvements are worth as much as the ranch. They secure another piece of land, the deed being made in the wife's name. If the wife dies without making a will, what would A. get by the laws of California?"

The answer to the above inquiry might depend upon the fact whether or not the wife had children. If the wife had no children, it would go to the husband. If there was but one child, one half would go to the husband, and if there was more than one child, one third would go to the husband and the remainder in equal shares to the children.

WIDOW'S RIGHTS

W. F. H., Montana, wants to know: "What are the rights of a widow where there has been one child, and it died in infancy? Could the widow get the child's interest for that child? What interests, if any, have a brother and sister of the deceased husband, and how much is allowed the widow in case the husband has made no will?"

The widow would get no interest in the child's part, the child having died before the husband. In that case, one half of the property would go to the widow and the other half to the husband's mother. If the husband died before the child, then the child would have received one half and the mother one half, and upon the child's death I would think the mother would inherit the child's share.

WIDOW'S RIGHTS

Some one in Coldwater, Mich., asks: "If a man dies in Michigan, leaving a widow and no children, what share of the property does the widow get?"

Estates in Michigan are distributed as follows: After the debts are paid, the widow has dower in one third of all the lands owned by her husband. She may remain one year in the house of her husband after his death. She may hold a family homestead not exceeding fifteen hundred dollars in value, and also such reasonable allowance as the probate court may deem necessary for her maintenance from the death of her husband. She also gets wearing-apparel not exceeding two hundred and fifty dollars. If there are no children, one half goes to the widow and the other half to the husband's father and mother. If there are children, then the estate goes to such children.

STATUTE OF FRAUDS

M. A. E., Illinois, propounds the following: "A. had a farm for sale. B. bargained for it verbally, under the conditions that B. rent the farm for the following year to A.'s present tenant and pay the tenant a bill for improvement on the farm. A contract was written between the tenant and B., and also signed by them, but the bill was not paid. At this point A. refused to sell the farm. At the refusal B. instituted a lawsuit for the possession. Can A., not having signed or seen the rental contract, be compelled to give up the deeds? B. wants to claim possession on the strength of the rental contract. No money had been paid on the farm by B."

Away back in the time of Elizabeth, Queen of England, there was a law passed which was known as the statute of frauds. This statute is reënacted in nearly all of the states, and generally provides that no contract for lands shall be valid except by deed or note, in writing, signed by the party. In the above case there was no contract between the parties signed in writing, therefore unless something was done to take it without this statute, A. could not be compelled to make a deed. If C., however, went into possession of the property under the contract with B., the property would thereby become the possession of B., and that might give him a right to have a deed for the farm made to him.

TRADE CHECKS

R. Z. B., North Carolina, asks: "Is it illegal to pass trade checks, etc.?"

Several of the states have passed laws making such transactions between corporations and its employees illegal. These are variously worded, and some of the state courts have upheld them, while others have declared them void.

FENCE ALONG TRACTION-LINE

J. W., Illinois, wants to know "if electric street-railways have to keep up, and build, the fences along their right of way?"

The correct answer to this question would involve the examination of the statute of the state in which the road is situated. In Ohio, where the law generally requires railroads to fence their right of way, it has been conceded by traction-lines in building their roads that they would have to keep up the fences.

ASCERTAINMENT OF PROPERTY BELONGING TO DECEASED PERSONS

W. S. G., Bethany, says: "Years ago my mother received money from her people, which was delivered over to my father. My father finally gave my mother a note without interest. After my mother's death my father took possession of a key to my mother's desk, and none of the children have ever been able to find out what was in the desk."

About the only remedy that the children would have in such a case would be to have an administrator appointed for the mother's estate, and then under the laws of Ohio they could compel the father to turn over whatever property he has belonging to the mother.

BREACH OF LEASE

W. N., Ohio, propounds the following: "Suppose A. rents a farm to B. with the understanding that B. shall put in a cistern to water cattle. B. refuses, and A. has to drive his cattle one mile to the river each day. Can A. collect pay from B. for his time, or is A. compelled to pay the rent so long as he drives his stock?"

The difficulty about the above question is whether the contract stipulates that B. shall put in the cistern. The query states that it is the understanding. If it is in the contract, A. could recover whatever he suffered by reason of B. failing to live up to the same. He would be compelled to pay rent, but may offset his damages.

WIDOW'S SHARE WHERE NO WILL

Old Subscriber in Oregon wishes to know: "If a man having a farm and personal property dies without a will, and leaves wife and children, which part, and to how much, would the wife be entitled, and how much of the income would be allowed to educate minor children?"

The widow is entitled to one half during her natural life of all lands belonging to her husband, likewise one half of the personal property absolutely. I am not advised as to the amount allowed for a year's sustenance. Generally it may be said that all the income of a child may be used, if necessary, for its education, and under the laws of Oregon children would get one half of the property.

ADMINISTRATION LAWS

M. L. W., Massachusetts, inquires: "Can an administrator claim pay, and if so, how much? When one of the heirs is appointed an administrator of an estate that brings in one hundred and twenty dollars above all expenses a year, and he has nothing to do but pay the taxes, should he not divide the one hundred and twenty dollars among the heirs?"

In Massachusetts an administrator is allowed such compensation for his services as the court in which the account is filed considers just and reasonable. It is probable that some part of the one hundred and twenty dollars should be divided among the heirs, provided the debts are all paid.

The Family Physician

By R. B. HOUSE, M.D.

It is a good general rule never to give whisky or other stimulants to a person who is bleeding, for the reason that it is apt to increase the hemorrhage and to materially augment the patient's excitement. Keep stimulants away until after the bleeding has stopped, when they will be unnecessary.

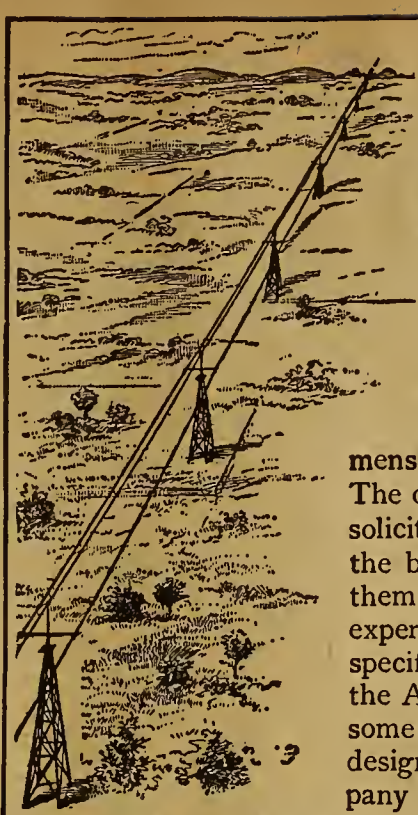
A REMEDY AGAINST THUMB-SUCKING

Is any mother in despair because her baby will persist in sucking its thumb? I was at one time, as all efforts failed to break up the habit in my baby boy. I noticed the comfort the little fellow took with it at night as he composed himself to sleep, and thought if I could but keep it from him at that time I should come off conqueror. So I made him some night-gowns of flannel (part cotton), with the sleeves very long, coming several inches below his hands, put them on, laid him in his crib, and then stood off to watch the effect. When he sought for his thumb it was not to be found, and the feel of the flannel was most uncomfortable to his mouth and decidedly too thick through which to suck his thumb.

He cried and screamed, and tried again and again to find that comforting thumb; but it was gone, and he, no doubt in wondering mood, fell asleep. The habit, thus cracked, was easily broken, for when he found that he could not take his thumb to bed with him, he gave up caring for it during the day. The baby was four or five months old at the time of breaking the habit.—G. R., in Babyhood.

CAN THE MORPHINE ADDICT "QUIT?"

To many, especially that class who have not been brought in direct contact with morphinism, the question will appear ludicrous. It is to that class I would direct the question, at the same time asking their sober, conservative consideration, for I know no class of people more deserving of consideration, sympathy, and even legislation, than the "fiend." There is little of importance written to guide one in his judgment of narcotic addiction, and as a consequence we are compelled to rely solely upon observation. But can he quit? Certainly not, unless assisted by antidotal remedies. Let us consider his condition. We have a case whose cortical centers are being destroyed; whose reasoning-faculties are impaired; whose cunning is increased; whose sense of moral obligation is so weak that the courts will not accept his testimony; whose whole system is surrounded by one continual peripheral irritation. Are all these physiological phenomena present without destructive influences? You have as true pathological conditions as ever existed in any recognized disease, and having pathological manifestations you have disease, and are called upon to cure it just the same as any disease recorded. To say "just quit" is as nonsensical as to say "just quit" to your case of diphtheria. No man who ever saw a narcotic patient deprived of his stimulant, without help, would doubt my statement. First comes nervousness, an uneasy feeling, and then aching, severe pains in the epigastrium; the muscles begin to twitch, the patient is drawn up or doubled; the physical suffering becomes almost unbearable; the pulse runs from one hundred and twenty to one hundred and sixty, a cold, clammy perspiration breaks out all over the body, and the patient sinks down or thrashes around amid hallucinations, soon followed by a collapse. These manifestations will be apparent in nine cases out of ten. If you are skeptical, get one to let you watch him. It is nonsense to say a man can abstain from a drug the absence of which causes such suffering. It is equally nonsensical not to recognize him as a diseased person when such pathological conditions exist. If not, then pathology and disease are not synonymous. If the patient survives the "just quit" method, he experiences an ever-present nervous depression, a vague, void feeling, a sensation of dread, just the same as in gradual-reduction processes. It is a disease pure and simple, and has to be treated as such.—H. R. Barton, M.D., in the National Druggist.

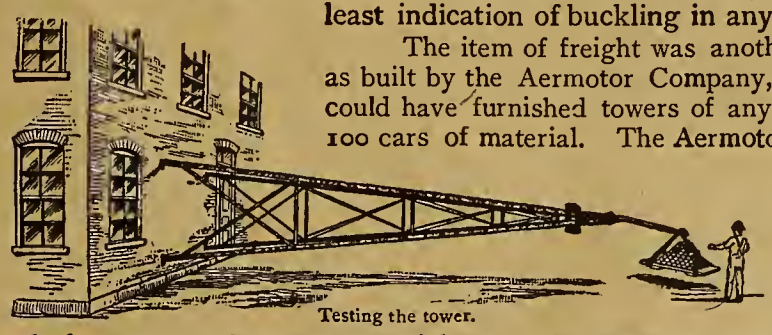


110 MILES OF STEEL TOWERS

Top of tower after the test.

The largest order ever placed for Steel Towers has just been executed by the Aermotor Company, Chicago. The order was for 1,200 steel towers to support large electric cables. These towers are to be erected in the interior of Mexico, to carry electricity from an immense water power plant up to the mines over 100 miles distant. The order for these towers came to the Aermotor Company unsolicited. The reputation of the Aermotor Company for building the best steel towers, for windmill and other purposes, brought them this unusual order. When the engineering and mining experts, who were placing the contract, were making up their specifications for these towers, they found no place in the construction of the Aermotor tower where they could suggest improvement. The sizes of some of the parts were changed to meet their particular needs, but the design of the towers remained precisely the same as the Aermotor Company perfected it years ago.

It was of very great importance to the company buying these towers to secure the greatest possible strength with the least material. The towers were to be placed about 500 feet apart. The weight of the long span of cables would be a very heavy load, to say nothing of the enormous side strain which might come upon the towers. Then, too, the contingency of one or more of the cables breaking, and throwing unequal strain upon different parts of the towers, had to be considered. The Aermotor Company guaranteed these towers to stand until the 3-inch, extra strong wrought iron pipe in the top should bend over. They stood this very severe test without the least indication of buckling in any part of the tower.



Testing the tower.

The item of freight was another important consideration. These towers, as built by the Aermotor Company, made over 75 carloads. No other concern could have furnished towers of anything like the same strength with less than 100 cars of material. The Aermotor Company has a very great advantage over all others in the manufacture of steel towers. It was the first in the field, and had all the most vital features fully covered by patents before competitors were through laughing at the idea of a steel tower. The Aermotor tower was designed by mechanical experts who knew what points were essential to secure the greatest strength with the least material.

The tops of the corner posts of the Aermotor towers are dovetailed into each other and securely clamped together. This makes them as solid as though they were welded into a single piece. This patented device in the Aermoter tower brings all of the strain directly upon the corner posts where it belongs. The braces and girts have nothing to do but to hold the corners in line. Because other makers are not able to adopt this feature, they are compelled to use a large amount of extra material in their towers, and even then their towers are not so strong. Weight often indicates weakness rather than strength. All the weight not needed serves only to bring additional strain upon the parts which must bear it.

The best steel tower, like the best bicycle, is the one which secures the greatest strength with the least possible material. The Aermotor tower is strong, safe and durable. Every pound of steel which is put into it is used to the best advantage. A tower twice as heavy, but poorly constructed, would be weaker.

The tower is a very important consideration in buying a windmill outfit. If the tower goes down, the best windmill will be worthless.

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We have a book that tells all about windmills. It begins with the Dutch wind mills of 1400 and ends with the Aermotor of 1903. It contains 125 pictures to show you what windmills should do and what they should be. It tells all that invention has done for them. When you read this book you will know all that anyone knows about windmills. You will know the right kind from the wrong kind and know all the differences. To avoid a mistake don't buy without reading it. The book is free. Simply write for it.

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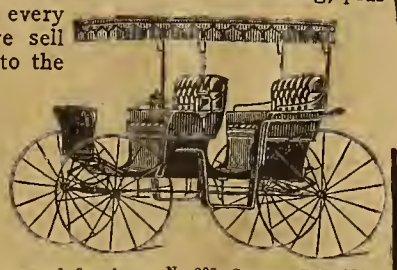

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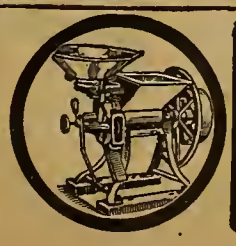

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If not send it back. We ship out all our **QUAKER CITY GRINDING MILLS** on those terms. You will know when you have once tried it. Look at the cut. See the double hopper. One crushes and grinds ear corn and the other mixes in the oats, barley, rye, wheat, etc., just as you want it. Special burrs for special uses. **Sucking attachment** extra when ordered. **Makes the finest corn meal for table use. Ball Bearings** make these easy runners. Sold under a positive guarantee. Send for 36th Annual Catalog. Mailed **free.** We handle all standard makes of farm implements. Get our prices on what you want.

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FARMS FOR SALE.—I have a large list of desirable farms, ranging from 40 to 240 acres, in the extreme southern part of Michigan, which I would be pleased to show to intending purchasers of farm property. Send for complete list.
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UNION LOCK Poultry Fencing

Has been fully tested and found superior to all others.

Will fit uneven ground without cutting.

Every Part Stretches Perfectly.

Made of high grade galvanized steel wire. All horizontal lines are cables, making it stronger. Has fine mesh at bottom for small chicks. We also make extra heavy for gardens, lawns, etc. The largest poultry farms are using this fence—over 700 rods by Lakewood (N. J.) Farm Co. We pay freight and satisfy every one or no sale. Can ship from New York, Philadelphia or Pittsburg. Write for free catalog of Farm, Lawn and Poultry Fencing.

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GREEN RAPE costs 25 cents per TON!

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will positively make you rich; 12 tons of hay and lots of pasture per acre, so also Bromus, Peanut, Speltz, Macaroni wheat for arid, hot soils, 63 bus. per acre. 20th Century Oats, 250 bus. per acre and Teosinte, Yields 100 tons Green Fodder per acre.

For this Notice and 10c. we mail big catalog and 10 Farm Seed Novelties, fully worth $10 to get a start.

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OUR 14-TOOTH HARROWS ARE UNSURPASSED

Made from special high-grade steel. Strong and durable. Expanding levers. Reversible and adjustable teeth. Strongly braced. Adjustable in depth. No better made. All kinds of other agricultural implements. We can save you money. *Write for catalogue and prices.*

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THE IDEAL SACK HOLDER

A perfect labor-saving device, can be used in the field, barn, mill or feed-store, it being portable. (Standard, platform and hopper are combined.) Weight 15 lbs. complete; is strong and durable. Sacks can be filled from a basket or scoop-shovel. We know you will be pleased with it. We also manufacture the celebrated South Bend Spark Arrester for thresher and mill engines. For prices address

The South Bend Spark Arrester Co., South Bend, Ind., U. S. A.

Would $3,000.00 in cash come handy? This is the possible amount of the first grand prize in the Immigration Contest. For particulars see Page 25 of this paper.

Farm Selections

THE PROPER SEED-BED FOR OATS

In our boyhood days no one thought of sowing oats except on plowed land. As oats usually follows corn, the plowing was done in the spring. When we came West it occurred to us that Western farmers showed bad taste and judgment in sowing oats and spring wheat on corn-stalks without plowing the land. The more we study the seed-bed, however, the more fully we are convinced that the Western farmers were right, and that the method which the newly arrived farmer from the East described as "hogging it in" was based on correct scientific principles.

All grain crops do better on a compact, well-settled seed-bed, and whatever method is necessary to obtain that at seeding-time should be followed. It is almost impossible to secure this well-settled seed-bed after it is plowed in the spring. It can be secured, but it requires more work than it is possible under ordinary circumstances for the farmer to give. Therefore, where the corn-ground has been plowed deep and thoroughly cultivated, a perfect seed-bed can be obtained much more easily by the use of the disk and harrow in all that territory where the frost has penetrated two or more feet deep. This frost is Nature's method of plowing, and when it goes out of the ground it usually leaves the upper foot in a good physical condition.

What is necessary, then, to prepare a seed-bed for oats or spring wheat? First disk it, especially after a spring rain has compacted the upper three or four inches, forming a compact crust, which promotes evaporation and the drying out of the soil. The first thing, therefore, to do is to disk, break up this crust, and conserve moisture. By cross-disking, a dust-mulch can be obtained quite readily, which will furnish the proper conditions for rapid growth and leave the solid bottom which plants require and the close capillary connection between the soil and the subsoil.

There may be in the southern part of our territory, on the heavier clay soils, conditions where plowing is necessary, but it should be done either in the fall, where that is possible, or as early in the spring as possible; then the turned furrow should be thoroughly worked down by the use of the disk until capillary connection with the subsoil is reëstablished and the dust-mulch maintained on the surface.—Wallace's Farmer.

ALFALFA INQUIRIES

A subscriber at Dekalb, Mo., writes: "I want to seed a few acres to alfalfa this spring. I have some land that has been in corn two years, was in red clover two years previous to that, and has been in cultivation ten years. I have another piece that has been in cultivation a number of years, and in red clover three years. Which of the two would you advise me to sow to alfalfa?"

Choose the drier of the two plots. Cover it with manure now, and plow under deeply. Sow the alfalfa on a good seed-bed about the middle of April. Clip it close to the ground two or three times during the summer. Be sure the land is firm before you seed—that is, well compacted (of course, not when it is wet).

A. H. L., Rock Lick, W. Va., writes: "I have two plots of ground which I am seeding to alfalfa. Both these plots are good, strong ridge land. One contains about one and one half acres, mostly heavy limestone soil, though a small portion of it is rather loose clay. The other plot contains about seven acres, partly limestone, but the greater part is clay. The clay in this plot is a rather heavy, yellow clay, and a part of it loose, having much fine stone nearly like gravel in it. Both plots were sod-ground farmed to corn last year. They were entirely covered with manure during the winter and spring previous to plowing, and were thoroughly cultivated last season. This land has had repeated applications of stable manure. The smaller plot catches the drop off one side of my barn, which is about forty by one hundred feet surface. Should I carry off this water? Is inoculation necessary to secure a stand?"

Though I have not seen these plots, I feel sure they are good places for alfalfa if they are dry enough in winter. These old, well-manured fields are the very places in which to put it. Doubtless inoculation would hasten the growth of the plant and insure its thrift. Observe rules frequently given for sowing: plow deep as soon as you can now, throwing up a little fresh clay; bring to a good seed-bed, sow half a bushel of oats to the acre, with two hundred and fifty pounds of acid phosphate and all the wood-ashes you can scrape up; cover the alfalfa-seed about an inch deep; have the land firm after seeding, and smooth, so the mower can run close; cut the oats off for hay as soon as they show signs of heading; keep stock off the first year, mowing twice, and you will succeed. About one hundred pounds of earth from a successful alfalfa-field will help make doubly sure, and I would sow it with the seed.

S. C., Cox's Mills, Ind., writes: "Will it be of any advantage to sow lime on limestone land for alfalfa? Lime does other crops no good here on limestone land. If there is not enough of the bacteria in the seed sown, would it be advisable for me to send to Kansas, Iowa or Nebraska for one or more barrels of the soil from an alfalfa-field?"

It is a curious fact that very often limestone soils—that is, soils above lime rock—have been leached of their lime so long that it pays to apply fresh lime again. This can only be definitely known by trial. Apply lime on a few strips of the land, and note the results. Where the fair stand is you had best leave it be; on the other part of the field spread a good coat of manure this winter, plow it deeper than you previously did, and sow again in the spring. It will be wise to get a small amount of inoculated soil from some good alfalfa-field to put on that field if on trial next spring you find no tubercles on the roots of your alfalfa. It is not always necessary to inoculate. Very often on well-manured fields the bacteria are there soon after the seed is sown; probably they come with the seed, and multiply readily in soils filled with decaying vegetable matter. It will not be necessary to send to Nebraska for soil to inoculate, but write your own experiment station; those in charge can tell you, or should be able to tell you, of the nearest inoculated and successful field.—Joseph E. Wing, in the Breeder's Gazette.

CATALOGUES RECEIVED

W. F. Allen, Salisbury, Md. Allen's strawberry catalogue.

W. N. Scarf, New Carlisle, Ohio. Illustrated nursery catalogue.

J. L. Loebs, Aberdeen, S. D. Descriptive catalogue of farm seeds.

G. L. Taber, Glen Saint Mary, Fla. Nursery bulletin and price-list.

Arthur J. Collins, Mooreston, N. J. Catalogue of trees, plants and roses.

W. Atlee Burpee & Co., Philadelphia, Pa. Burpee's Prize Supplement for 1903.

Plant Seed Company, St. Louis, Mo. Catalogue of garden, field and flower seed.

Johnston Harvester Company, Batavia, N. Y. Hanger illustrating a self-binder at work.

The Livingston Seed Company, Columbus, Ohio. Livingston's annual of True Blue Seeds.

E. C. Brown & Co., Rochester, N. Y. Illustrated catalogue of hand and power spray-pumps.

A. W. Straub & Co., Philadelphia, Pa. Catalogue of the Quaker City grain-grinding mills.

Elbert G. Packard, Dover, Del. Circular of seeds for field crops for forage and soil-improvement.

John D. Imlay, Zanesville, Ohio. Illustrated catalogue of "a few choice seeds and plants."

John W. Hall, Marion Station, Ind. Fruit, seed and plant catalogue. Second-crop seed-potatoes a specialty.

The Vehicle Apron and Hood Company, Columbus, Ohio. Illustrated catalogue of the "Blizzard" storm-front.

Cyphers Incubator Company, Buffalo, N. Y. How to Make Money with Poultry and Incubators—a catalogue describing a full line of poultry appliances.

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We will send this Repeating Air-rifle Free for a Club of SIX yearly subscriptions to the Farm and Fireside. (See shipping directions below.)

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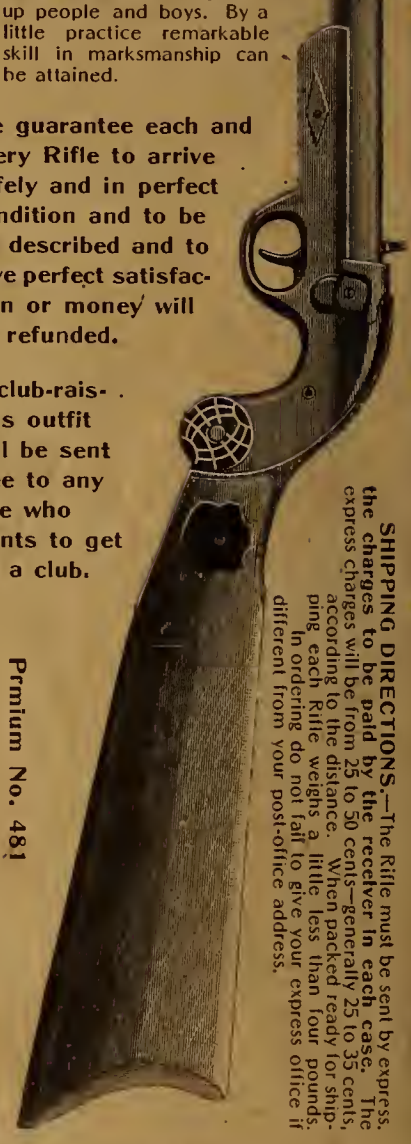
The Rifle is made of excellent material. It is 32 inches long, with nickel-plated barrel. It has a globe sight and wooden stock. It is simply and strongly made. Any boy can operate it. It is a very hard shooter. It will carry a bullet a long distance. It is easily and quickly loaded.

Shoots 300 Times

The ammunition-chamber in the Repeater holds over 300 bullets. The Repeater is operated by pressing down a spring after each shot. The ammunition is B. B. shot, which is for sale in stores everywhere. Ten cents will buy about 1000 bullets. Owing to its accuracy, hard shooting and the cheapness of its ammunition, this new Sentinel Air-rifle is very popular alike with grown-up people and boys. By a little practice remarkable skill in marksmanship can be attained.

We guarantee each and every Rifle to arrive safely and in perfect condition and to be as described and to give perfect satisfaction or money will be refunded.

A club-raiser's outfit will be sent free to any one who wants to get up a club.



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SHIPPING DIRECTIONS.—The Rifle must be sent by express, the charges to be paid by the receiver in each case. The express charges will be from 25 to 50 cents—generally 25 to 35 cents, according to the distance. When packed ready for shipping each Rifle weighs a little less than four pounds. In ordering do not fail to give your express office if different from your post-office address.

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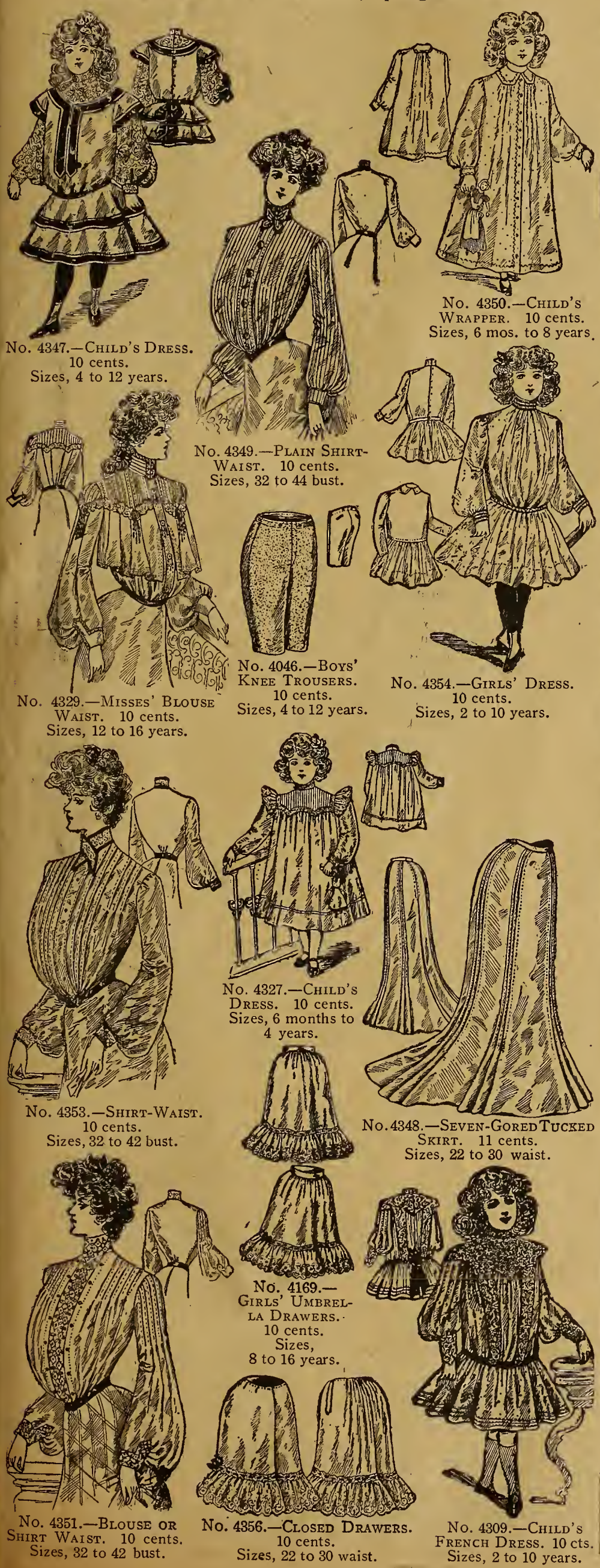

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No. 4353.—Shirt-Waist. 10 cents. Sizes, 32 to 42 bust.

No. 4327.—Child's Dress. 10 cents. Sizes, 6 months to 4 years.

No. 4348.—Seven-Gored Tucked Skirt. 11 cents. Sizes, 22 to 30 waist.

No. 4169.—Girls' Umbrella Drawers. 10 cents. Sizes, 8 to 16 years.

No. 4351.—Blouse or Shirt Waist. 10 cents. Sizes, 32 to 42 bust.

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260b At Noontide ..... *Hill*
27b Ave Maria. From Cavaleria Rusticana ..... *Mascagni*
134b Beautiful Moonlight. Duet ..... *Glover*
238b Bells of Seville ..... *H. Jude*
162b Ben Bolt, of "Trilby" fame ..... *Kneass*
282b Between Love and Duty ..... *Dryden*
226b Blue Eyes ..... *Elson*
246b Boyhood Days. Chorus ..... *Fritz*
200b Bridge, The. Words by Longfellow ... *Carew*
268b Bride Bells ..... *Roeckel*
276b Brown-Eyed Bessie Lee. Chorus ... *Arbuckle*
192b Can You, Sweetheart, Keep a Secret? ..... *Estabrooke*
214b Childhood's Happy Hours ..... *Dinsmore*
138b Christmas Carol ..... *Turner*
190b Come When the Soft Twilight Falls ..... *Schumann*
284b Come Back to Our Cottage ..... *Estabrooke*
168b Coon's Breach of Promise. Cake Walk .. *Blake*
294b Crown of Glory ..... *Tours*
286b Danube River ..... *Aide*
250b Darling, I Shall Miss You ..... *Cohen*
176b Darling Nellie Gray ..... *Hanby*
244b De Banjo am de Instrument ..... *Rutledge*
70b Dear Heart, We're Growing Old .. *Estabrooke*
302b Dear Little Heart 'Neath the Daises. *Rutledge*
328b Jennie With the Sweet Brown Eyes. *Rutledge*
28b Juanita. Ballad ..... *May*
242b Kathleen Mavourneen ..... *Crouch*
196b Killarney ..... *Balfe*
132b Kiss Me, But Don't Say Good-by .... *Rutledge*
130b Kiss That Bound My Heart to Thine .... *Keil*
164b Larboard Watch. Duet ..... *Williams*
312h Let Me Dream Again ..... *Sullivan*
146b Listen to the Mocking Bird ..... *Hawthorne*
38b Little Boy Blue. Solo or Duet .... *Estabrooke*
154b Little Voices at the Door ..... *Danks*
96b Lost Chord, The ..... *Sullivan*
326b Love Divine, All Love Excelling ..... *Stainer*
308b Mamie ..... *Daly*
234b Margaretta ..... *Balfe*
112b Massa's Sleepin' in de Churchyard ..... *Keefer*
230b Memories of My Mother. Chorus ..... *Allen*
172b Mother's Welcome at the Door .... *Estabrooke*
222b Musical Dialogue. Duet ..... *Helmund*
232b Must the Sweet Tie That Binds ... *Estabrooke*
76b My Home By the Old Mill ..... *O'Halloran*
170b My Old Kentucky Home ..... *Foster*
216b Oh, Sing Again That Gentle Strain. *Dinsmore*
228b Old Folks at Home (Swanee River) .. *Foster*
270b Old Village Church ..... *Hatton*
104b On the Banks of the Beautiful River ..... *Estabrooke*
90b On the Beach. Beautiful Ballad .... *Robinson*
258b Out on the Deep ..... *Lohr*
160b Outcast, An. Character Song ..... *Fritz*
174b Parted From Our Dear Ones ..... *Keller*
304b Did You Ever Call Me Darling? ..... *Vane*
128b Don't Drink, My Boy, To-night. Temp. *Hoover*
290b Dream of Love ..... *Elson*
310b Dream of Spring, A. Op. 1, 2 .... *Curschmann*
256b Dwelling With the Angels. Chorus .. *Turner*
50b Easter Eve. Sacred ..... *Gounod*
220b Ever Sweet is Thy Memory ..... *Hosfeld*
318b Falling Star ..... *Pinsuti*
180b Far Away ..... *Bliss*
182b Father is Drinking Again. Temperance
152b Flag of Our Country. Patriotic ..... *Mathiot*
156b Flag, The. Quartet ..... *Fox*
144b Flirting in the Starlight ..... *Delano*
138b For a Dream's Sake ..... *Cowen*
66b For You We are Praying at Home .. *Estabrooke*
166b From Our Home the Loved are Going .. *Percy*
336b Frost Upon the Pane ..... *Wallerstein*
288b Gathered Roses ..... *Pinsuti*
202b Give a Kiss to Me ..... *Percy*
178b God Bless My Kind Old Mother ..... *Jewell*
204b Golden Moon ..... *Ivan*
262b Greeting. Duet ..... *Mendelssohn*
150b Gypsy Countess. Duet ..... *Glover*
324b Haunts of Childhood ..... *Dinsmore*
198b Heart of My Heart ..... *Robinson*
272b How Can I Leave Thee? Duet .... *Greenwood*
184b I Can't Forget the Happy Past ..... *Skelly*
248b In Shadowland ..... *Pinsuti*
266b In Summer Time ..... *Marzials*
296b It is a Legend Old ..... *Offenbach*
188b In the Starlight. Duet ..... *Glover*
306b Peace to Thy Spirit. Duet ..... *Verdi*
314b Peal of the Village Bell. Chorus ..... *Skelly*
254b Picture of My Mother, The ..... *Skelly*
148b Poor Girl Didn't Know. Comic ..... *Cooke*
274b Private Tommy Atkins ..... *Potter*
136b Request. Sacred ..... *Grainger*
208b Rocked in the Cradle of the Deep ..... *Knight*
224b Shall I Ever See Mother's Face Again? ..... *Adriance*
332b She's Dreaming of the Angels ..... *Estabrooke*
194b She Sleeps Among the Daisies ..... *Dinsmore*
124b Softly Shine the Stars of Evening .. *Dinsmore*
210b Son's Return, The ..... *Fritz*
120b Storm at Sea. Descriptive ..... *Hullah*
278b Summer Shower ..... *Marzials*
32b Sweet Long Ago, The ..... *Estabrooke*
206b There's Sure to be a Way ..... *Delano*
158b Thinking of Home and Mother ..... *Cohen*
334b 'Tis Years Since I Parted, Dear Mother. *Irwin*
292b Titania's Cradle ..... *Lehmann*
108b Tread Softly, the Angels are Calling .. *Turner*
38b True to the Last ..... *Adams*
252b Warrior Bold ..... *Adams*
84b What are the Wild Waves Saying? Duet *Glover*
58b When the Roses are Blooming Again .. *Skelly*
186b Whistling Wife, The. Comic ..... *Randall*
212b Why am I Ever Watching? ..... *de Lasaide*
218b Why Do Summer Roses Fade? ..... *Barker*
338b Wish, A ..... *Chopin*
300b Yellow Roses ..... *Watson*
322b Zelma Lee. Chorus ..... *Estabrooke*

GREAT OFFERS

1 We will send your choice of ANY SIX of the above Pieces FREE, postage paid by us, for sending only TWO yearly subscriptions to the Farm and Fireside. Or

2 We will send the Farm and Fireside One Year and ANY SIX of these Pieces for only 60 Cents.

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We will send the FARM AND FIRESIDE one year, new or renewal, and this Family Dial-Scale for only . . $1.25

(To Club-Raisers:—When the subscriber pays you this special price you are entitled either to the regular cash commission or to count the name in a club)

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AGENTS and Club-Raisers wanted at every post-office in the United States and Canada for our two big journals, WOMAN'S HOME COMPANION and FARM AND FIRESIDE. Costly premiums given away, or biggest cash commissions. Address Dept. C, THE CROWELL PUBLISHING CO., Springfield, Ohio.

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Cured Through the Feet

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We want every one who has rheumatism to send us his or her name. We will send by return mail a pair of Magic Foot Drafts, the wonderful external cure which has brought more comfort into the United States than any internal remedy ever made. If they give relief, send us One Dollar; if not, don't send us a cent.

Magic Foot Drafts are worn on the soles of the feet, and cure by absorbing the poisonous acids in the blood through the large pores. They cure rheumatism in every part of the body. It must be evident to you that we couldn't afford to send the drafts on approval if they didn't cure. Write to-day to the Magic Foot Draft Co., 350½ Oliver Building, Jackson, Michigan, for a trial pair of drafts on approval. We send also a valuable booklet on Rheumatism.

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$3.00 to $5.00 per acre in Tennessee, Kentucky, Alabama and Georgia. Write W. W. Jones, Immigration Agent, Spitzer Building, Toledo, Ohio.

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The first and third Tuesdays of each month. Round-trip and one-way tickets will be sold via this route to points in the South and Texas.

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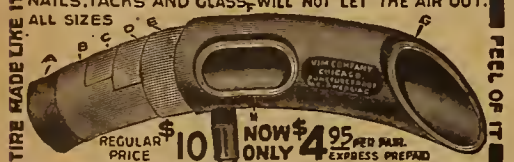

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I WILL write you personally, giving you the secret how to cure Rheumatism. Send 10c. silver and 2c. postage. Address W. C. PERRY, 1834 N. 22 St., Philadelphia, Pa.

TAPE-WORM EXPELLED ALIVE. Head guaranteed; FREE booklet. Byron Field & Co., Dept. C.B., 182 State St., Chicago

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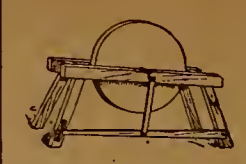
We Want to be Neighborly, and so Invite All of Our Readers to Use Our Grindstone. It Will Sharpen Your Wits, Quicken the Intellect, Afford Healthful Recreation, and Give Innocent Amusement and Entertainment

Residents of Springfield, Ohio, are not allowed to enter the contests.



THE SIX POETS

Each of the Six Pictures Below Represents the Name of a Well-Known Poet. The First is Longfellow. Can You Name the Others? Ten Dollars Cash Offered in Five Prizes, as follows: The Person from Whom We Receive the First Correct List of Poets Will be Given Five Dollars Cash. The Person Sending the Next Correct List Will Receive Two Dollars Cash. The Three Persons Sending the Next Correct Lists Will Each Receive One Dollar Cash. Answers Must Reach us Before April 1st. Send Answers to "Puzzle Editor," FARM AND FIRESIDE, Springfield, Ohio.

ONE.

TWO.

THREE.

FOUR.

FIVE.

SIX.

THE FIVE MERCHANTS

Five merchants who met weekly to consider business affairs decided that they would sit in a different position every time, the one at the head presiding. The question arose:

In How Many Positions Can They Be Seated?

Five Dollars Cash Given in Prizes

Also a Valuable Prize for Each State and Territory —The Contest is Open to Everybody

Two dollars in cash will be given to the first person sending the correct answer to the problem.

One dollar in cash will be given to each of the next three persons sending correct answers to the problem.

A large and handsome engraving, our own selection from our superb collection of "Masterpieces of Art," size twenty by twenty-five inches, will be given for the first correct answer received from each state and territory. This means a picture for each of the forty-five states, one for each territory, and one for the District of Columbia, also one for Canada. The first correct answer from each state wins a prize, giving equal opportunity to all our readers, wherever located. In the states where the cash prizes are awarded, the prize picture will be given to the person sending the second correct answer, so that one person will not receive two prizes.

Auswers must reach this office not later than April 1, 1903, and must be addressed to the Puzzle Editor, FARM AND FIRESIDE, Springfield, Ohio.

ANSWERS TO PUZZLES OF FEBRUARY 15th ISSUE

Our Literary Puzzle

The following is the correct list of titles and authors:

1—"The Man in Black," by Stanley J. Weyman.
2—"Our Mutual Friend," by Charles Dickens.
3—"The Descent of Man," by Charles Darwin.
4—"Views Afoot," by Bayard Taylor.
5—"Middlemarch," by George Eliot.
6—"The Ring and the Book," by Robert Browning.
7—"A Lily of France," by Caroline Atwater Mason.
8—"The Two Van Revels," by Booth Tarkington.
9—"The Virginian," by Owen Wister.

The ten dollars cash offered as prizes are awarded as follows:

First prize, five dollars, to Mrs. Maud B. Little, Ocala, Florida.

Second prize, two dollars, to Mrs. W. H. Arthur, Worcester, Massachusetts.

Third, fourth and fifth prizes, one dollar each, to Willis B. Clarke, Huntsburg, Ohio; Emma Harvey, Junction City, Kansas; Miss Carlotta Boone, Syracuse, New York.

The Five Problems

The answers to the problems are as follows:

1—One dollar and seventy-five cents. Originally seven; five present. There are other correct solutions.
2—Sixteen eggs.
3—Forty dollars was the cost of the suit; coat, twenty-two dollars; pants, eleven dollars.
4—Ten turkeys; fourteen sheep. There are other correct answers to this problem.
5—One, the speaker only.

The first prize, two dollars, is awarded to W. O. Jenkins, New Carlisle, Ohio.

The second, third and fourth prizes, one dollar each, are awarded to J. T. Holt, Washington, D. C.; Eva Alice Morse, Detroit, Michigan; Mrs. W. H. Blalock, Kinston, North Carolina.

A copy of our valuable book, entitled "One Thousand Ways to Make Money," is awarded to each of the following for sending the first correct answer from the state:

Alabama—Mrs. E. A. White, Montgomery.
Arkansas—Nap Covey, Bentonville.
California—Ethel Senter, Clinton.
Canada—E. J. Kingsley, Cornwall, Ont.
Colorado—O. M. Louden, Arvada.
Connecticut—Carrie M. Judd, Fairfield.
Delaware—R. Rittenhouse, State Road.
Florida—J. C. Donaldson, Longwood.
Georgia—Mrs. H. G. Huggins, Waycross.
Illinois—Julius S. Lycan, McKeen.
Indiana—F. E. Weir, Ligonier.
Indian Territory—A. C. Parrott, Checotah.
Iowa—Kate Westcott, Iowa City.
Kansas—F. E. Drake, Manhattan.
Kentucky—Mrs. Wesley M. Rardin, Butler.
Louisiana—Mamie Thames, Montgomery.
Maine—Ella B. Loring, Yarmouthville.
Maryland—Mrs. L. Mehring, York Road.
Massachusetts—W. W. Holton, Atbol.
Michigan—Mrs. A. L. Brigham, Lawrence.
Minnesota—F. V. Edwards, Spring Valley.
Mississippi—H. K. Murray, Vicksburg.
Missouri—Dura A. Nelson, Green Ridge.
Montana—E. C. Woodward, Willow Creek.
Nebraska—N. E. Davis, Fairbury.
New Hampshire—Sidney B. Converse, Claremont.
New Jersey—Otis H. Elwell, Elmer.
New York—Beulah Katharine Clute, Binghamton.
North Carolina—Allen Edgerton, Pinkney.
North Dakota—Samuel Molberg, Rutland.
Ohio—H. D. McVay, Socialville.
Oklahoma—Dewey Hicks, El Reno.
Oregon—James M. Burtenshaw, Lebanon.
Pennsylvania—R. H. Young, West Sunbury.
South Carolina—W. H. Bryan, St. Charles.
South Dakota—Mrs. Ed. Wilson, Aurora.
Tennessee—Nevins Arnold, Trezevant.
Texas—Mrs. Annie Brunson, Midland.
Vermont—Laura E. Perkins, Pomfret.
Virginia—C. D. Kefauver, Bealeton.
Washington—Grace Randall, Vancouver.
West Virginia—O. T. Lytle, Parkersburg.
Wisconsin—Philip L. Hudson, Mazomanie.

225 CASH PRIZES **$5,000.00** 225 CASH PRIZES

TO BE GIVEN AWAY

In a Profit-Sharing Contest

The FARM AND FIRESIDE will give $5,000.00 (FIVE THOUSAND DOLLARS), to be distributed to such of its subscribers as may care to engage in an intellectual and profitable contest which will familiarize them with the Immigration of Foreigners into the United States.

? What will be the number of Immigrants to arrive in the United States in the year ending June, 1903, according to the regular report of the United States Government ?

To the two hundred and twenty-five persons making the nearest correct estimates on this there will be distributed the sum of $5,000.00 (Five Thousand Dollars), in the following proportions and under the following conditions:

To the one making the correct or nearest correct estimate of the number of Immigrants arriving in the United States in the Fiscal Year ending June, 1903	$2,500.00
To the second nearest	1,000.00
To the third nearest	500.00
To the fourth nearest	250.00
To the fifth nearest	100.00
To the sixth nearest	50.00
To the next four nearest, $25.00 each	100.00
To the next five nearest, $10.00 each	50.00
To the next ten nearest, $5.00 each	50.00
To the next 200 nearest, $2.00 each	400.00
In all 225 Cash Prizes, aggregating	$5,000.00

THE IMMIGRATION OF OTHER YEARS

For the Fiscal Year ending June of each year

1883 603,322	1888 546,889	1893 502,917	1898 229,299
1884 518,592	1889 444,427	1894 314,467	1899 311,715
1885 395,346	1890 455,302	1895 279,948	1900 448,572
1886 334,203	1891 560,319	1896 343,267	1901 487,918
1887 490,109	1892 623,084	1897 230,832	1902 648,743

Total for last twenty years, 8,769,271. Average each year, 438,463.

$500.00 EXTRA FOR EARLY ESTIMATES

If the correct or nearest correct estimate is received in March, $500.00 will be added to the First Prize, so that the

First Prize will be $3,000.00

instead of $2,500.00, if the estimate which secures it is made in March.

Send your estimate at once, and you may be the fortunate person to secure Three Thousand Dollars without cost.

Your receiving FARM AND FIRESIDE is an acknowledgment from us that your subscription has been received.

CONDITIONS

1. Fifty cents entitles you to the FARM AND FIRESIDE for one year and to one estimate. You may subscribe for as many as five years in advance, and each year's subscription will entitle you to one estimate.
2. You can send subscriptions at the rate of fifty cents for each year, with an estimate for each yearly subscription, and direct the estimate to be recorded in your name and the paper sent to a friend.
3. After an estimate has once been received and registered no changes will be permitted.
4. If there is a tie in the estimate of two or more persons for any one of the prizes, the amount thereof will be equally divided among them.
5. After the receipt of the Official Certificate from the proper Government Officials an impartial committee will award the prizes. Its award will be published in the FARM AND FIRESIDE, and the money will be distributed, and this shall be final and binding on all.

You pay nothing for the privilege of estimating. Simply subscribe at the regular price, 50 cents a year, and send your ESTIMATE FREE.

(No one connected with our establishment either directly or indirectly, and no one living in Springfield or Clark County, Ohio, will be permitted to send an estimate, and the entire contest will be conducted in the most fair and impartial manner possible.)

Blank for Subscription with Estimate

Date.....

Pub. FARM AND FIRESIDE, Springfield, Ohio:

With this I inclose 50 cents for one year's subscription to FARM AND FIRESIDE, and give below my estimate of the number of immigrants arriving in the United States in the Fiscal Year ending June, 1903. I subscribe to all the conditions of the offer as published.

My estimate is.....

Name.....

Post-office.....

County..... *State*.....

If you send more than one estimate, be sure to write each estimate on a separate piece of paper about the size of this blank, and write your name and address very plain and distinct.

Blank for Subscription with Estimate

Date.....

Pub. FARM AND FIRESIDE, Springfield, Ohio:

With this I inclose 50 cents for one year's subscription to FARM AND FIRESIDE, and give below my estimate of the number of immigrants arriving in the United States in the Fiscal Year ending June, 1903. I subscribe to all the conditions of the offer as published.

My estimate is.....

Name.....

Post-office.....

County..... *State*.....

If you send more than one estimate, be sure to write each estimate on a separate piece of paper about the size of this blank, and write your name and address very plain and distinct.

A Large Cash Commission will be paid Agents, Canvassers and Club-Raisers for obtaining subscriptions. Write for terms at once.

ESTIMATES FREE Instead of a cash commission, Agents and Club-Raisers will be allowed one estimate on each subscription, if they prefer it.

Address all communications to FARM AND FIRESIDE, Springfield, Ohio

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Few People Know How Useful It is in Preserving Health and Beauty

Nearly everybody knows that charcoal is the safest and most efficient disinfectant and purifier in nature, but few realize its value when taken into the human system for the same cleansing purpose.

Charcoal is a remedy that the more you take of it the better; it is not a drug at all, but simply absorbs the gases and impurities always present in the stomach and intestines, and carries them out of the system.

Charcoal sweetens the breath after smoking, drinking, or after eating onions and other odorous vegetables.

Charcoal effectually clears and improves the complexion, it whitens the teeth, and further acts as a natural and eminently safe cathartic.

It absorbs the injurious gases which collect in the stomach and bowels; it disinfects the mouth and throat from the poison of catarrh.

All druggists sell charcoal in one form or another, but probably the best charcoal and the most for the money is in Stuart's Absorbent Lozenges; they are composed of the finest powdered Willow charcoal and other harmless antiseptics in tablet form, or rather in the form of large, pleasant-tasting lozenges, the charcoal being mixed with honey.

The daily use of these lozenges will soon tell in a much-improved condition of the general health, better complexion, sweeter breath and purer blood; and the beauty of it is that no possible harm can result from their continued use, but, on the contrary, great benefit.

A Buffalo physician, in speaking of the benefits of charcoal, says, "I advise Stuart's Absorbent Lozenges to all patients suffering from gas in stomach and bowels, and to clear the complexion and purify the breath, mouth and throat; I also believe the liver is greatly benefited by the daily use of them; they cost but twenty-five cents a box at drug-stores, and although in some sense a patent preparation, yet I believe I get more and better charcoal in Stuart's Absorbent Lozenges than in any of the ordinary charcoal tablets."

SOLD! UNDER A Positive Guarantee

to wash as clean as can be done on the washboard, even to the wristbands and collar of the dirtiest shirt, and with much more ease. This applies to Terriff's Perfect Washer, which will be sent on trial at wholesale price. If not satisfactory, money will be refunded. AGENTS WANTED. For exclusive territory, terms and prices, write

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If afflicted with weak eyes, use **Thompson's Eye Water**

Wit and Humor

IF EACH GOT ALL HE EARNED

If every man got all he earned,
  And none got any more,
Perhaps affairs would be o'erturned;
  Some men who heretofore
Have put on lordly style would fall,
  And meekly work away,
  While other men obscure to-day
Would loom up grand and tall—
But most of us, chagrined, would find
  Ourselves precisely where
We are at present, still inclined
  To think the scheme unfair.
  —S. E. Kiser, in Record-Herald.

ADVICE

A YOUNG woman has written the following letter to a conductor of a heart-to-heart department in one of our contemporaries:

"I have been engaged to a young man two years older than I am for several months, but we have kept it a secret. Where I am working there is a young

man two years younger than I am who says he loves me, and I think I love him. I am twenty years old. What shall I do?

"ALICE."

Break away from the man to whom you are engaged, buy a nursing-bottle and a high chair, and make the boy happy.—Record-Herald.

HE NEVER SPOKE AGAIN

The following story is told of a ventriloquist, now famous, but at the time of this happening so hard up he used to walk between the cities where he was to appear. On one of these tours he came to Philadelphia on foot, and on the road he picked up a miserable little dog "because it looked so much like he felt." The story will explain what became of the dog.

The first house he came to was a saloon, and of course he wanted a drink. He had no money, but went in anyhow to see what he could do. The proprietor, a German, said, "Vell, vat vill you haf?"

He said, "I'll take a little whisky;" and then, turning to the dog, he asked, "What will you have?"

"I'll take a ham sandwich."

The German was so surprised he almost fainted. He looked at the dog a moment, and then asked, "Vat did you say?"

"I said a ham sandwich."

Hans thought it wonderful that a dog should be able to talk, and asked who had trained him, how long it had taken, etc., and wound up with, "How much you took for him?"

"Oh," said Mr. Ventriloquist, "I wouldn't sell him at any price, but I am a little hard up now, and if you will lend me fifty dollars I'll leave him with you till I bring the money."

"All right," said Hans. "I yust vant him for a leedle vile, so I can show him to some shmart bcoble I know 'round here."

So everything was settled, the money paid, etc., and as the ventriloquist went out, he turned and waved his hand to the dog, and said, "Well, good-by, Jack. I'll come back soon."

"You mean brute, to sell me for fifty dollars after all I've done for you! So help me Moses, I'll never speak another word as long as I live!"

And he didn't.—Philadelphia Times.

ACCEPTED THE INVITATION

The story is told of a young man in West Gardner who called one night a few weeks ago upon a young lady who lived a considerable distance from his home. It was raining hard that night, and when the young man started to take his leave at about eleven o'clock, the mother of the young lady upon whom he had been calling told him that he had better remain there that night and occupy the spare chamber. He told them that he thought perhaps he would, but upon their return to the front room after a few minutes' absence they found that their visitor had gone. Supposing that he had changed his mind, and decided to spend the night at home, they locked the doors and started to retire, when there came a knock at the door. Upon opening it they found the young man with a little bundle under his arm. He explained that he had just been home after his night-clothing.—Gardner (Mass.) News.

HARD TO IDENTIFY

Jack Mason, the actor and former husband of Marion Manola, was much bothered in a barber-shop at Billings, Mont., by the proprietor of the place, who insisted upon carrying on a conversation with Mason while he shaved him. When, after some questioning, the barber discovered that Mason was an actor, he inquired, "First visit here?"

"No, I've been here before."

"Is that so? Well, now—"

"You ought to remember me," interrupted the victim, who was now quite savage. "I've been shaved here."

"It's funny I don't recall your face," retorted the barber.

"Well, come to think of it, you would not be apt to," snapped Mason. "It's all healed up now."

And the barber kept on shaving.—Delaware County Democrat.

THE THOUGHTLESSNESS OF THINKS

The smokelessness of powder, the horselessness of carriages, the hornlessness of cattle, the seedlessness of raisins, the wirelessness of telegraphy, the tonguelessness of wagons, the earlessness of corn, the eyelessness of potatoes, the brainlessness of brains—well, there is no telling where this thing of less plus ness will go before the end is reached.—Bagology.

"Tommy, you must not interrupt your elders when they are talking. Wait until they stop."
"They never stop."

GOOD MANAGEMENT

Mrs. Pingey—"I don't see how you can manage to go to church three times on Sunday."

Mrs. Bland—"I manage it simply by doing no work of any kind on the Sabbath. I think it positively wicked for women to stay at home and cook dinners for their husbands on Sundays."

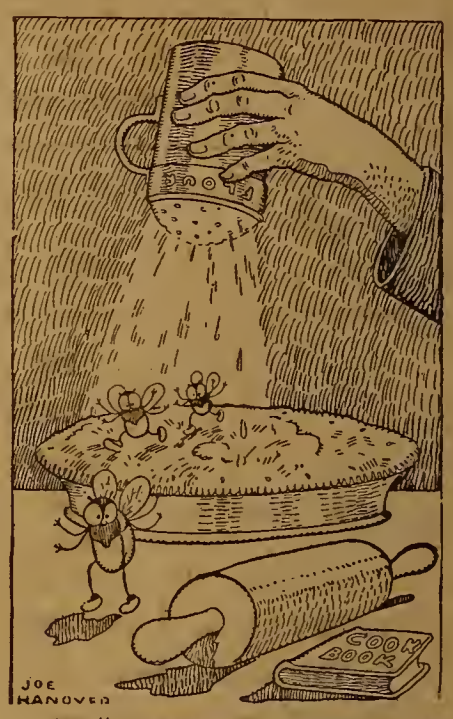
Mrs. Pingey—"I suppose, then, you have a cold lunch at noon?"

Mrs. Bland—"Oh, dear, no. I always take dinner at Mr. Bland's sister's. She's a splendid cook, and she always tries to do her best on Sundays."—Spare Moments.

IN THE ESSAYS

"Can't I sell you an encyclopedia?" asks the affable agent of the short-haired woman who meets him at the door.

"I believe not," she answers, slowly closing the door; "I believe not. I am president of our culture club, and I have heard all there is in all the encyclopedias several times over."—Judge.



Flies—"Goodness! Who thought it was going to snow to-day?"

A LITERARY MAN

Mrs. Case—"I hear your son Mike has gone into literature."

Mrs. Clance—"So he has. He's got a job as janitor in a library."—Judge.

HOW HE DID IT

Here is a witticism which is credited to Senator Hoar, of Massachusetts. The Senator was showing some of his Boston friends around the capital recently, when he pointed out a magnificent old residence built by a famous lawyer of the earlier period.

"Why," asked the frugal New-Englander, "was he able to build that handsome residence by his practice?"

"Yes," replied the Senator, "by his practice and his practices."—Washington Evening Star.

A SHY SWEETHEART

At a circuit court in a provincial county town a young countrywoman was under examination.

"Now, my good girl," said the advocate, "you say you were near the spot when the prisoner at the bar committed the act. Was any one with you at the time?"

"Yiss, yiss, me lord ant atvocate, me sweetheart was wis me."

"Courting, I suppose?" was again asked. "Is he here? We want corroborative evidence."

"Yiss, me atvocate ant lord, shust ootside."

"We had better call him into court," here remarked the judge.

"No, no, me lord!" cried the witness. "Gootness, no! I can hartly get him to court me when we're alone, ant I'm sure he won't do it afore you all."—Answers.

CHANGED

"Yes, he's given up the political job he had."

"The idea! Why, I understood it was a regular little sinecure."

"So it was, but after the last election it became a little insecure."—Washington Star.

Wit and Humor

THE KNOCKER

She had a little hammer,
  She used it with a will,
She knocked at everybody—
  They couldn't keep her still;
She knocked about her neighbors
  If they were friends or foes,
She knocked about the table,
  And knocked about her clothes.

She knocked at hubby's smoking,
  About his snoring, too;
She knocked about his whistling,
  And so, perhaps, would you;
At last the Reaper claimed her,
  Her course on earth was run;
Her husband then considered
  Her knocking days were done.

But hubby went one evening
  To see a spirit show,
Where always, in the gloaming,
  The spirits come and go.
He heard a spirit knocking—
  "My wife," he said, "I'll bet!
Now isn't she a wonder?
  By gosh! she's knocking yet!"
—Yonkers Statesman.

UNEXPECTED ANSWERS

A MAN who answered advertisements in cheap "story-papers" has had some interesting experiences. He learned that by sending one dollar to a Yankee he could get a cure for drunkenness. And he did. It was to "take the pledge, and keep it." Then he sent fifty two-cent stamps to find out how to raise turnips successfully. He found out—"Just take hold of the tops, and pull." Being young, he wished to marry, and sent thirty-four one-cent stamps to a Chicago firm for information as to how to make an impression. When the answer came, it read, "Sit down on a pan of dough." It was a little rough, but he was a patient man, and thought he would yet succeed. Next advertisement he answered read, "How to double your money in six months." He was told to convert his money into bills, fold them, and he would see his money doubled. Next he sent for twelve useful household articles, and he got a package of needles. He was slow to learn, so he sent one dollar to find out "How to get rich." "Work like the devil, and never spend a cent." And that stopped him; but his brother wrote to find out how to write a letter without pen or ink. He was told to use a lead-pencil. He paid one dollar to learn how to live without work, and was told on a postal-card to "Fish for suckers as we do."—From an Exchange in Our Dumb Animals.

A CHANGE

"Well," said Noah, as he hunted for a dry spot on the top of Ararat, "a lot of people came down to the pier to josh us when we started, but I don't see any of them around to poke fun at our home-coming."—Life.

KISSED BY A COW IN COURT

Probably the most unique testimony ever offered in a court-room was that by Mrs. Emma Houghman, of South Omaha, recently.

Charles Epstein claimed ownership of a Jersey cow. Mrs. Houghman had him arrested and brought replevin proceedings simultaneously. When the case was called for trial, Mrs. Houghman asked that the cow be brought into court. Judge King permitted it, and Mrs. Houghman called the cow by a pet name. Immediately the Jersey walked over to her, and kissed her by rubbing her muzzle affectionately against Mrs. Houghman's face.

Three times this act was repeated, and Mrs. Houghman was declared the owner. —Boston Record.

NOT AT ALL

"They tell me," said the guileless stranger in the lobby of the hotel at San Antonio, "that a revolver is just like a dress-suit down here—that a man does not—"

"Not at all, son," interrupted a big-mustached man; "not at all. A man never wants a dress-suit down here until he is going to get married or buried. And he wants a gun, and he wants to have it handy; and he wants to know just how to work it before he gets too gay with his comments on our climate, our customs or our conduct. Savvy?"

The guileless tenderfoot savvied with all due haste.—Judge.

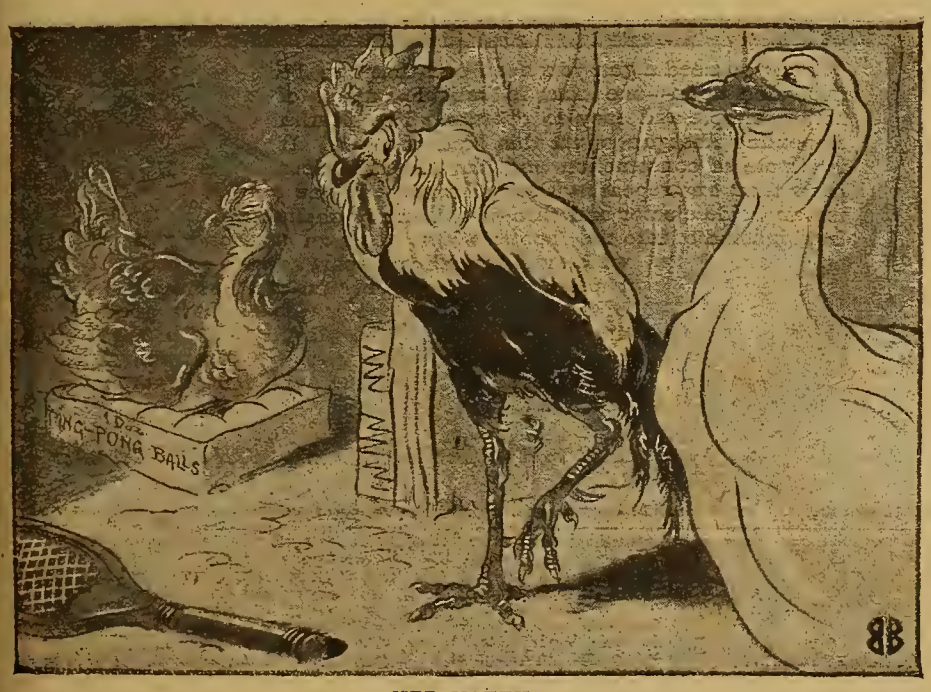
HOW THE BOY SOLVED IT

A Baptist and a Methodist minister were by accident dining at the same house. As they took their seats there was an embarrassed pause, the hostess not knowing how to ask one minister to say grace without offending the other. The small son quickly grasped the situation, and half rising in his chair, moved his finger rapidly around the table, reciting, "Eny, mene, miny, mo; catch a nigger by the toe." He ended by pointing his finger at the Baptist minister, and shouting, "You're it!" The reverend gentleman accepted the decision, and said grace, but it lacked the usual solemnity.—The Columbian.

SHE SAID IT

She was an unsophisticated country girl, and had been engaged as housemaid in the service of the Duke of Rutland at Belvoir. When she came, she was thus instructed by the housekeeper, "Whenever you meet the Duke, Alice, be sure to say 'Your Grace.'"

The very next day, as the maid was going down the passage, the Duke chanced to meet her. Immediately the girl drew herself close to the wall, closed her eyes, and assuming reverential attitude, said, "Lord, supply the wants of others, and make us thankful. Amen!"—Christian Register.



HER HOBBY

The Goose—"How is it you never play ping-pong? I thought you bought a set."
The Rooster—"I did, but, confound it! my wife has been trying to hatch out the balls ever since."

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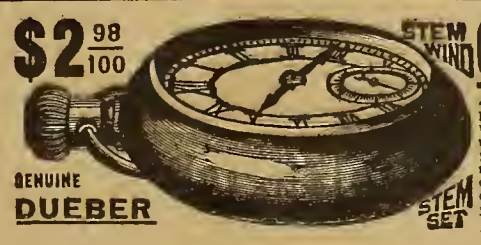

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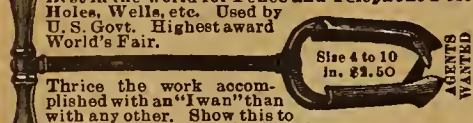

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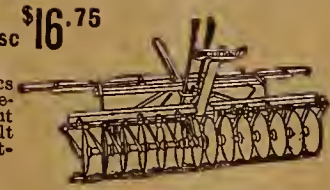

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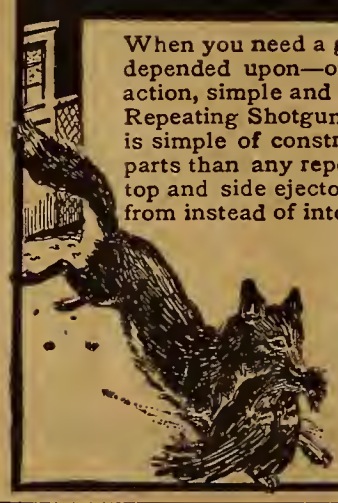
CHICAGO, ILLINOIS

MARLIN REPEATING SHOTGUN



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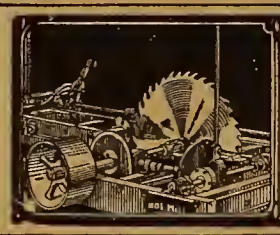
The Marlin Firearms Co., New Haven, Ct.



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